```
=> fil reg
FILE 'REGISTRY' ENTERED AT 12:27:14 ON 31 AUG 2006
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STRUCTURE FILE UPDATES:   30 AUG 2006  HIGHEST RN 905475-39-0
DICTIONARY FILE UPDATES:  30 AUG 2006  HIGHEST RN 905475-39-0

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  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document.  For information
on property searching in REGISTRY, refer to:

http://www.cas.org/ONLINE/UG/regprops.html

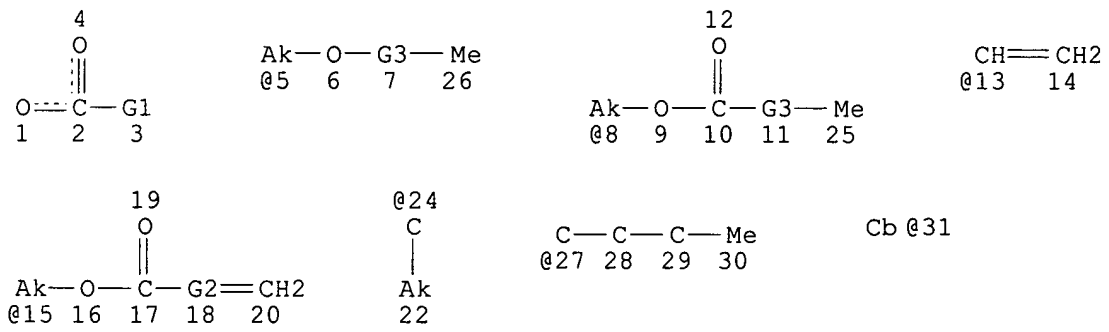
=> d sta que l113
L73             SCR 970 AND 2043
L74             STR

CH2==C
1     2


NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS   2

STEREO ATTRIBUTES: NONE
L86      430816 SEA FILE=REGISTRY SSS FUL L74 AND L73
L105            STR
```

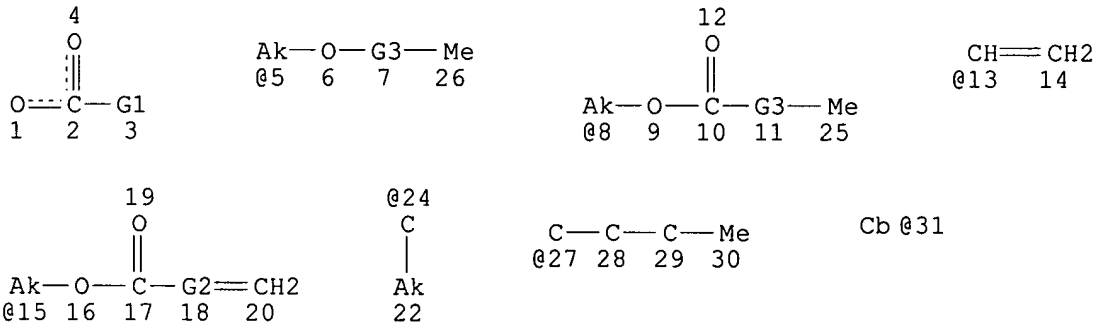



```
VAR G1=27/31/5/8/13/15
VAR G2=CH/24
```

REP G3=(1-20) CH2
NODE ATTRIBUTES:
CONNECT IS M1 RC AT 1
CONNECT IS M1 RC AT 31
DEFAULT MLEVEL IS ATOM
GGCAT IS UNS AT 31
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 29

STEREO ATTRIBUTES: NONE
L107 204150 SEA FILE=REGISTRY SUB=L86 CSS FUL L105
L108 56713 SEA FILE=REGISTRY ABB=ON PLU=ON L107 AND 3/ELC.SUB
L109 4274 SEA FILE=REGISTRY ABB=ON PLU=ON L108 AND 1/NC
L110 STR



VAR G1=27/31/5/8/13/15
VAR G2=CH/24
REP G3=(1-20) CH2
NODE ATTRIBUTES:
CONNECT IS M1 RC AT 1
DEFAULT MLEVEL IS ATOM
GGCAT IS UNS AT 31
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 29

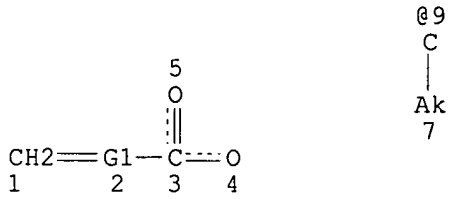
STEREO ATTRIBUTES: NONE
L111 189646 SEA FILE=REGISTRY SUB=L107 CSS FUL L110
L112 3264 SEA FILE=REGISTRY ABB=ON PLU=ON L111 AND L109
L113 4274 SEA FILE=REGISTRY ABB=ON PLU=ON (L109 OR L112)

=> => d sta que l104
L73 SCR 970 AND 2043
L74 STR

NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 2

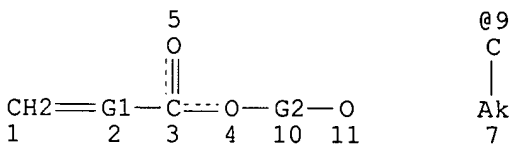
STEREO ATTRIBUTES: NONE
L86 430816 SEA FILE=REGISTRY SSS FUL L74 AND L73
L87 STR



VAR G1=CH/9
NODE ATTRIBUTES:
CONNECT IS M1 RC AT 4
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 7

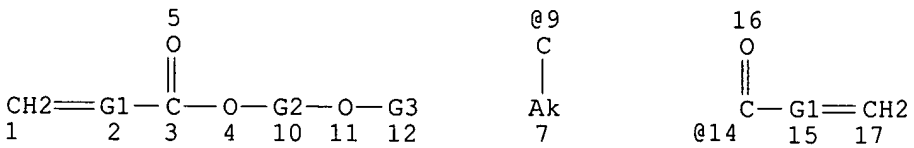
STEREO ATTRIBUTES: NONE
L89 299512 SEA FILE=REGISTRY SUB=L86 CSS FUL L87
L98 STR



VAR G1=CH/9
VAR G2=AK/ID
NODE ATTRIBUTES:
CONNECT IS M1 RC AT 11
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 9

STEREO ATTRIBUTES: NONE
L100 124805 SEA FILE=REGISTRY SUB=L89 CSS FUL L98
L101 STR



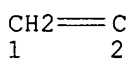
VAR G1=CH/9
VAR G2=AK/ID

```
VAR G3=14/AK
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  14

STEREO ATTRIBUTES: NONE
L103      31664 SEA FILE=REGISTRY SUB=L100 CSS FUL L101
L104      10745 SEA FILE=REGISTRY ABB=ON  PLU=ON  L103 AND 3/ELC.SUB

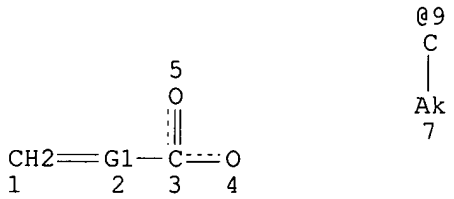

=> => d sta que l97
L73             SCR 970 AND 2043
L74             STR
```




```
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS   2

STEREO ATTRIBUTES: NONE
L86      430816 SEA FILE=REGISTRY SSS FUL L74 AND L73
L87             STR
```




```
VAR G1=CH/9
NODE ATTRIBUTES:
CONNECT IS M1  RC AT   4
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS   7

STEREO ATTRIBUTES: NONE
L89      299512 SEA FILE=REGISTRY SUB=L86 CSS FUL L87
L90       33743 SEA FILE=REGISTRY ABB=ON  PLU=ON  L89 AND C2H4O
L91        7143 SEA FILE=REGISTRY ABB=ON  PLU=ON  L90 AND 75-21-8/CRN
L92        1849 SEA FILE=REGISTRY ABB=ON  PLU=ON  L90 AND 25322-68-3/CRN
L93         320 SEA FILE=REGISTRY ABB=ON  PLU=ON  (L91 OR L92) AND 2/NC
L94         320 SEA FILE=REGISTRY ABB=ON  PLU=ON  L93 NOT IDS/CI
L95         189 SEA FILE=REGISTRY ABB=ON  PLU=ON  L94 AND 3/ELC.SUB
L96          26 SEA FILE=REGISTRY ABB=ON  PLU=ON  L95 AND NR>=2
```

```
L97          163 SEA FILE=REGISTRY ABB=ON  PLU=ON  L95 NOT L96


=> d his

     (FILE 'HOME' ENTERED AT 09:33:20 ON 31 AUG 2006)
                SET COST OFF

     FILE 'HCAPLUS' ENTERED AT 09:33:34 ON 31 AUG 2006
L1             1 S US20040029016/PN OR (US2003-635122# OR KR2003-28968 OR KR2002
                 E HWANG/AU
L2             2 S E3
                 E HWANG D/AU
L3            48 S E3,E4
                 E HWANG DUCK/AU
L4            32 S E4,E8,E11,E12
                 E HWANG NAME/AU
L5             6 S E4
                 E DUCK/AU
L6             1 S E3
                 E DUCKC/AU
                 E DUCK NAME/AU
                 E DUCKCHUL/AU
                 E LEE/AU
L7            31 S E3
                 E LEE KYOUNG/AU
L8            39 S E3
L9            32 S E23
                 E LEE KYOUNGH/AU
L10            1 S E4
                 E LEE NAME/AU
L11          264 S E4
                 E KYOUNG/AU
                 SEL RN L1

     FILE 'REGISTRY' ENTERED AT 09:38:00 ON 31 AUG 2006
L12           41 S E1-E41
L13           16 S L12 NOT ?PEROX?/CNS
L14           14 S L13 NOT LI/ELS
L15            1 S L14 AND C3H4O2
L16           40 S L12 NOT L15
L17              STR
L18           50 S L17 SAM
                 E LI/ELS

     FILE 'HCAPLUS' ENTERED AT 09:50:17 ON 31 AUG 2006
L19          450 S L2-L11 NOT L1
L20           36 S L19 AND 52/SC,SX
L21           37 S L19 AND (ELECTROCHEM? OR THERM? OR ENERG?)/SC,SX
L22           36 S L19 AND ?BATTER?
L23           35 S L19 AND ?ELECTROLYT?
L24           45 S L20-L23

     FILE 'REGISTRY' ENTERED AT 09:52:10 ON 31 AUG 2006

     FILE 'HCAPLUS' ENTERED AT 09:52:10 ON 31 AUG 2006
L25              TRA L24 1- RN :      549 TERMS

     FILE 'REGISTRY' ENTERED AT 09:52:12 ON 31 AUG 2006
L26           549 SEA L25
```

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L27          517 S L26 NOT L12
L28          102 S L27 AND PMS/CI
L29           34 S L28 AND C2H4O
L30            9 S L29 AND 1/NC
                 SEL RN 3 4 5
L31            3 S E1-E3
L32           25 S L29 NOT L30
L33            8 S L32 NOT PROPENOIC
L34            4 S L33 NOT PROPENYL
                 SEL RN 4
L35            1 S E4
L36            4 S L33 NOT L34
L37           17 S L32 NOT L33-L36
L38           13 S L37 NOT N/ELS
L39            3 S 25736-86-1 OR 25852-47-5 OR 97-90-5
L40        11889 S (25736-86-1 OR 25852-47-5 OR 97-90-5)/CRN
L41           10 S L40 AND 1/NC
                 SEL RN 8-10
L42            3 S E5-E7
L43            4 S L37 NOT L38
L44            9 S L31,L35,L39,L42
                 E C8H10O4/MF
L45           63 S E3 AND PROPEN?
L46           34 S L45 AND NR>=1
L47           29 S L45 NOT L46
L48            1 S L47 AND 3 ETHENYLOXY
L49            3 S 99934-89-1/CRN
                 E "((C2H4O)NC4H6O3)X"/MF
                 E "((C2H4O)NC6H6O3)X"/MF
L50            1 S E3
L51            1 S 50856-26-3
L52            1 S 13048-33-4
L53         3283 S 13048-33-4/CRN
L54            1 S L53 AND 1/NC AND C12H18O4
L55            1 S 42978-66-5
L56            1 S 42978-66-5/CRN AND C15H24O6 AND 1/NC
L57            1 S TETRAETHYLENEGLYCOL(S)(ACRLATE OR MONOACRYLATE)
                 E C11H20O6/MF
L58            1 S 19812-60-3
L59            1 S 19812-60-3/CRN AND C11H20O6 AND 1/NC
L60          392 S CAPROLACTONE(S)ACRYLATE
L61           17 S L60 AND 1/NC
                 SEL RN 14 15
                 SEL RN 14 13
L62            2 S E3-E4
L63           48 S L60 AND 2/NC
L64           43 S L63 AND OC6/ES
L65            1 S L64 AND C3H4O2
L66            2 S L64 AND C4H6O2
L67            1 S 434322-65-3
L68           20 S L67,L65,L54,L50,L39,L31,L35,L42,L48,L51,L54,L55,L56,L58,L59,L
                 SEL RN L68
L69        15779 S E5-E24/CRN
L70            9 S L69 AND PMS/CI AND 1/NC NOT IDS/CI
L71            8 S L70 NOT PHOSPHATE
L72           22 S L68,L71
L73              SCR 970 AND 2043
L74              STR
L75           50 S L74 AND L73 SAM
L76            3 S L72 AND 2/NC
```

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L77         226 S 79-10-7/CRN AND C2H4O AND 2/NC
L78           9 S 25322-68-3/CRN AND L77
L79         123 S 79-41-4/CRN AND C2H4O AND 2/NC
L80           9 S 25322-68-3/CRN AND L79
L81          39 S L72,L78,L80
L82          16 S L77 AND OC2/ES
L83           8 S 75-21-8/CRN AND L82
L84           6 S 75-21-8/CRN AND L79
L85          53 S L81,L83,L84
L86      430816 S L74 AND L73 FUL
L87             STR L17
L88          50 S L87 CSS SAM SUB=L86
L89      299512 S L87 CSS FUL SUB=L86
L90       33743 S L89 AND C2H4O
L91        7143 S L90 AND 75-21-8/CRN
L92        1849 S L90 AND 25322-68-3/CRN
L93         320 S L91,L92 AND 2/NC
L94         320 S L93 NOT IDS/CI
L95         189 S L94 AND 3/ELC.SUB
L96          26 S L95 AND NR>=2
L97         163 S L95 NOT L96
L98             STR L87
L99          50 S L98 CSS SAM SUB=L89
L100     124805 S L98 CSS FUL SUB=L89
L101            STR L98
L102         50 S L101 CSS SAM SUB=L100
L103      31664 S L101 CSS FUL SUB=L100
L104      10745 S L103 AND 3/ELC.SUB
                SAV TEMP L104 WEINER635/A
L105            STR
L106         50 S L105 CSS SAM SUB=L86
L107     204150 S L105 CSS FUL SUB=L86
L108      56713 S L107 AND 3/ELC.SUB
L109       4274 S L108 AND 1/NC
L110            STR L105
L111     189646 S L110 CSS FUL SUB=L107
L112       3264 S L111 AND L109
L113       4274 S L109,L112

     FILE 'HCAPLUS' ENTERED AT 11:42:33 ON 31 AUG 2006
L114       8643 S L85
L115       1011 S L97
L116      20096 S L104
L117      42497 S L113
L118      44061 S ?POLYMER? (S) ?ELECTROLYT?
L119     104084 S L114-L118
L120       8650 S L119 AND INITIAT?

     FILE 'REGISTRY' ENTERED AT 11:43:20 ON 31 AUG 2006
L121         40 S L12 NOT ACRYLIC ACID/CN
L122         37 S L121 NOT (LI/ELS OR LITHIUM)
L123         25 S L122 AND ?PEROX?/CNS
L124          3 S L121 AND N/ELS
L125          1 S L124 AND C8H12N4
L126         26 S L123,L125
L127         14 S L121 NOT L126
L128          1 S L127 AND C14H28O2
L129          1 S L127 AND C5H10O3
L130         28 S L126,L128,L129
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     FILE 'HCAPLUS' ENTERED AT 11:58:24 ON 31 AUG 2006
L131       1883 S L130 AND L119
L132       9667 S L120,L131

     FILE 'REGISTRY' ENTERED AT 11:58:51 ON 31 AUG 2006
L133          3 S L12 AND (LI/ELS OR LITHIUM)

     FILE 'HCAPLUS' ENTERED AT 11:59:03 ON 31 AUG 2006
L134        162 S L133 AND L132
L135        612 S L132 AND (LI OR ?LITHIUM?)
L136        614 S L134,L135
                E BATTERY/CT
                E E8+ALL
L137       8669 S E5
                E E7+ALL
L138       4061 S E9
                E E12+ALL
                E E 8+ALL
                E BATTERY ELECTROLYTE/CT
                E E4+ALL
                E E8+ALL
L139      16601 S E7+OLD,NT
                E E22+ALL
                E E9+ALL
L140      49601 S E7+OLD,NT
                E BATTERIES/CT
                E E3+ALL
L141     108226 S E1 OR E2+OLD,NT OR E3+OLD,NT OR E4+OLD,NT OR E5+OLD,NT
L142        288 S L136 AND L137-L141
L143          9 S L142 AND L1-L11
L144         19 S L142 AND SAMSUNG?/PA,CS
L145        197 S L142 AND (PY<=2002 OR PRY<=2002 OR AY<=2002)
L146         19 S L143,L144 AND L145

     FILE 'REGISTRY' ENTERED AT 12:03:59 ON 31 AUG 2006
L147          2 S (ACRYLIC ACID OR METHACRYLIC ACID)/CN
                SEL RN
L148     101413 S E1-E2/CRN
L149         23 S L148 AND (C4H6O2 OR C3H4O2) AND 1/NC NOT IDS/CI
L150          3 S L149 AND "(C3H4O2)X"/MF
L151          3 S L149 AND "(C4H6O2)X"/MF

     FILE 'HCAPLUS' ENTERED AT 12:05:30 ON 31 AUG 2006
L152          4 S L147,L150,L151 AND L146
L153         11 S L147,L150,L151 AND L145
L154         11 S L152,L153
L155         11 S L154 AND ?ELECTROLYT?
L156          3 S L138 AND L154
L157         75 S L138 AND L145
L158         83 S L155-L157
L159         19 S L158 NOT P/DT
                SEL DN 2 15
L160          2 S E3-E4
L161         64 S L158 NOT L159
L162         53 S L161 NOT L146
L163         74 S L146,L160,L162
L164         14 S L163 AND L114
L165          4 S L163 AND L115
L166         21 S L163 AND L116
L167         15 S L163 AND L117
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L168          26 S L164-L167
L169          37 S L163 AND L130
L170          16 S L169 AND L168
L171          10 S L168 NOT L170
L172          26 S L170,L171
L173          21 S L169 NOT L172
                 SEL AN 3 13
L174           2 S L173 AND E5-E8
L175          41 S L146,L160,L172,L174

     FILE 'REGISTRY' ENTERED AT 12:20:25 ON 31 AUG 2006

     FILE 'HCAPLUS' ENTERED AT 12:20:25 ON 31 AUG 2006
L176             TRA L175 1- RN :      509 TERMS

     FILE 'REGISTRY' ENTERED AT 12:20:27 ON 31 AUG 2006
L177         509 SEA L176
L178          38 S L177 AND (LI/ELS OR ?LITHIUM?/CNS)
L179          28 S L177 AND L130
L180         443 S L177 NOT L178,L179
L181         108 S L180 AND L86
L182           5 S L181 AND L85
L183           3 S L181 AND L97
L184          26 S L181 AND L104
L185          11 S L181 AND L113
L186          37 S L182-L185
L187          71 S L181 NOT L186
L188          27 S L187 AND 3/ELC.SUB
L189          24 S L188 NOT (N OR F)/ELS
L190          61 S L186,L189

     FILE 'HCAPLUS' ENTERED AT 12:25:10 ON 31 AUG 2006
L191          26 S L175 AND L190
L192          26 S L175 AND L179
L193          28 S L174,L191
L194          38 S L146,L193
L195           6 S L194 AND L147,L150,L151
L196          38 S L194,L195
L197          35 S L196 AND L178
L198          38 S L196,L197

     FILE 'REGISTRY' ENTERED AT 12:27:14 ON 31 AUG 2006

=> fil hcaplus
FILE 'HCAPLUS' ENTERED AT 12:28:25 ON 31 AUG 2006
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)
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FILE COVERS 1907 - 31 Aug 2006 VOL 145 ISS 10
FILE LAST UPDATED: 30 Aug 2006 (20060830/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d l198 bib abs hitstr retable tot

L198 ANSWER 1 OF 38 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2006:690908 HCAPLUS
DN 145:127641
TI **Electrolyte** composition containing **polymerization initiator** for multifunctional acrylate monomer and secondary **lithium** battery using the composition
IN Lim, Hyeon Jeong
PA **Samsung Sdi Co., Ltd., S. Korea**
SO Repub. Korean Kongkae Taeho Kongbo, No pp. given
CODEN: KRXXA7
DT Patent
LA Korean
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI KR 2004020632	A	20040309	KR 2002-52281	20020831 <--
PRAI KR 2002-52281		20020831 <--		

AB A composition for forming a **polymer electrolyte** which has excellent electrochem. properties and gives strong phys. properties is provided to control the speed of reaction **initiation** in thermal **polymerization** with a **polymerization initiator** for high temperature use. A secondary **lithium** battery using the same has improved electrochem. and phys. properties. The composition comprises a liquid **electrolyte**, a multifunctional acrylate monomer, and a **polymerization initiator** having a half-life (10 h) temperature 90-110°; wherein the **polymerization initiator** is peroxide. The **lithium** battery is composed of a cathode, an anode, and a **polymer electrolyte** obtained from the above composition

L198 ANSWER 2 OF 38 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2006:658402 HCAPLUS
DN 145:106934
TI Electrode plate containing crosslinked binder for **lithium** sulfur battery
IN Han, Ji Seong; Jung, Yong Ju; Kim, Jan Di; Kim, Seok
PA **Samsung Sdi Co., Ltd., S. Korea**
SO Repub. Korean Kongkae Taeho Kongbo, No pp. given
CODEN: KRXXA7
DT Patent
LA Korean
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI KR 2004009328	A	20040131	KR 2002-43249	20020723 <--
PRAI KR 2002-43249		20020723 <--		

AB An electrode plate for a **lithium** sulfur battery, its preparation method and a **lithium** sulfur battery containing the electrode plate are provided, to improve the energy d. and the lifetime characteristic of a **lithium** sulfur battery by employing a crosslinked binder

having excellent chemical resistance and binding force. The electrode plate comprises the **polymer** binder which is insol. in an **electrolyte** solution and is crosslinked by the heat or the irradiation of an UV ray or an elec. beam. Preferably the crosslinked polymer binder is the poly(vinyl pyrrolidone). Preferably a crosslinking **initiator** is added when the polymer binder is crosslinked, and the **initiator** is the 4,4'-diazidostilbene-2,2'-disulfonic acid sodium salt tetrahydrate. Preferably the degree of swelling of the binder is 20 % or less.

IT **7439-93-2**, **Lithium**, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(electrode plate containing crosslinked binder for **lithium** sulfur battery and **lithium** sulfur battery containing electrode plate)
RN 7439-93-2 HCAPLUS
CN Lithium (7CI, 8CI, 9CI) (CA INDEX NAME)

Li

L198 ANSWER 3 OF 38 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2005:78058 HCAPLUS
DN 142:159579
TI Method of preparation of solid **polymer electrolyte** for electrochemical cells
IN Oh, Bookeun; Amine, Khalil; Vissers, Donald R.
PA USA
SO U.S. Pat. Appl. Publ., 20 pp., Cont.-in-part of U.S. Ser. No. 104,352.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 11

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2005019667	A1	20050127	US 2004-496230	20040520 <--
	US 2003180624	A1	20030925	US 2002-104352	20020322 <--
	WO 2003083971	A1	20031009	WO 2003-US2128	20030122 <--

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRAI	US 2002-104352	A2	20020322	<--
	WO 2003-US2128	W	20030122	
	US 2002-167940	A	20020612	<--

AB Disclosed is an improved solid **electrolyte** made of an interpenetrating network type solid **polymer** comprised of two compatible phases: a crosslinked **polymer** for mech. strength and chemical stability, and an ionic conducting phase. The highly branched siloxane polymer of the present invention has one or more poly(ethylene oxide) groups as a side chain. The PEO group is directly grafted to silicon atoms in the siloxane polymer. This kind of branched type siloxane **polymer** is stably anchored in the network structure and provides continuous conducting paths in all directions throughout the IPN solid **polymer electrolyte**. Also disclosed is a method

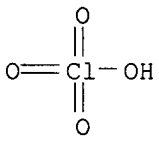
of making an electrochem. cell incorporating the electrolyte. A cell made accordingly has an extremely high cycle life and electrochem. stability.

IT **7439-93-2, Lithium**, uses **7791-03-9, Lithium** perchlorate **14283-07-9, Lithium** tetrafluoroborate **21324-40-3, Lithium** hexafluorophosphate **29935-35-1, Lithium** hexafluoroarsenate **33454-82-9, Lithium** triflate **90076-65-6 111307-51-8 113066-89-0**, Cobalt **lithium** nickel oxide (Co0.2LiNi0.8O2) **132404-42-3 132843-44-8 244761-29-3, Lithium** bis(oxalato)borate
RL: DEV (Device component use); USES (Uses)
(method of preparation of solid **polymer electrolyte** for electrochem. cells)

RN 7439-93-2 HCAPLUS
CN Lithium (7CI, 8CI, 9CI) (CA INDEX NAME)

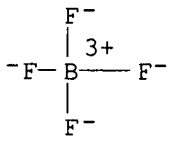
Li

RN 7791-03-9 HCAPLUS
CN Perchloric acid, lithium salt (8CI, 9CI) (CA INDEX NAME)



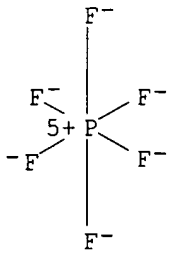
● Li

RN 14283-07-9 HCAPLUS
CN Borate(1-), tetrafluoro-, lithium (8CI, 9CI) (CA INDEX NAME)



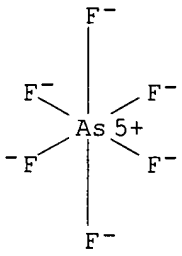
● Li^+

RN 21324-40-3 HCAPLUS
CN Phosphate(1-), hexafluoro-, lithium (8CI, 9CI) (CA INDEX NAME)



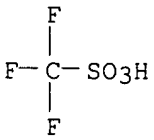
● Li^+

RN 29935-35-1 HCAPLUS
CN Arsenate(1-), hexafluoro-, lithium (8CI, 9CI) (CA INDEX NAME)



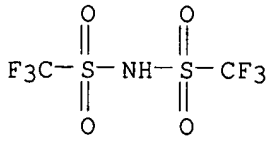
● Li^+

RN 33454-82-9 HCAPLUS
CN Methanesulfonic acid, trifluoro-, lithium salt (8CI, 9CI) (CA INDEX NAME)



● Li

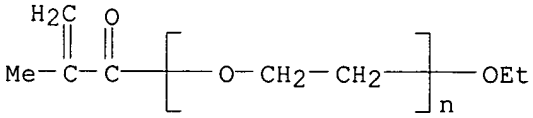
RN 90076-65-6 HCAPLUS
CN Methanesulfonamide, 1,1,1-trifluoro-N-[(trifluoromethyl)sulfonyl]-, lithium salt (9CI) (CA INDEX NAME)



RN 111307-51-8 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 1,2-ethanediyl ester, polymer with α-(2-methyl-1-oxo-2-propenyl)-ω-ethoxypoly(oxy-1,2-ethanediyl) (9CI) (CA INDEX NAME)

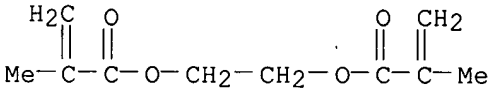
CM 1

CRN 35625-93-5
CMF (C2 H4 O)n C6 H10 O2
CCI PMS



CM 2

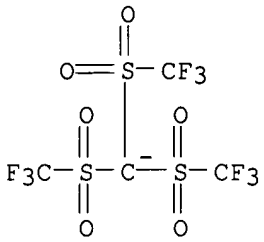
CRN 97-90-5
CMF C10 H14 O4



RN 113066-89-0 HCAPLUS
CN Cobalt lithium nickel oxide (Co0.2LiNi0.8O2) (9CI) (CA INDEX NAME)

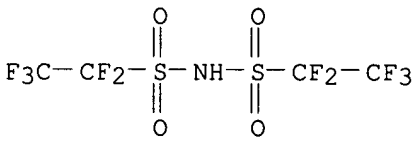
Component	Ratio	Component Registry Number
O	2	17778-80-2
Co	0.2	7440-48-4
Ni	0.8	7440-02-0
Li	1	7439-93-2

RN 132404-42-3 HCAPLUS
CN Methane, tris[(trifluoromethyl)sulfonyl]-, ion(1-), lithium (9CI) (CA INDEX NAME)



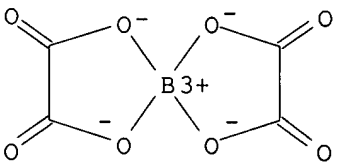
● Li^+

RN 132843-44-8 HCAPLUS
CN Ethanesulfonamide, 1,1,2,2,2-pentafluoro-N-[(pentafluoroethyl)sulfonyl]-, lithium salt (9CI) (CA INDEX NAME)



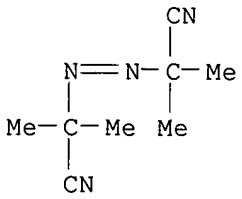
● Li

RN 244761-29-3 HCAPLUS
CN Borate(1-), bis[ethanedioato(2-)-κO1,κO2]-, lithium, (T-4)- (9CI) (CA INDEX NAME)

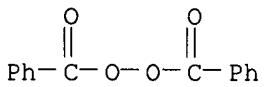


● Li^+

IT **78-67-1 94-36-0**, Benzoyl peroxide, uses
49717-87-5D, alkyl derivative **49717-97-7D**, alkyl derivative
RL: MOA (Modifier or additive use); USES (Uses)
(method of preparation of solid **polymer electrolyte** for electrochem. cells)
RN 78-67-1 HCAPLUS
CN Propanenitrile, 2,2'-azobis[2-methyl- (9CI) (CA INDEX NAME)



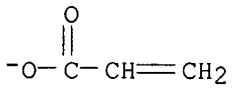
RN 94-36-0 HCAPLUS
CN Peroxide, dibenzoyl (9CI) (CA INDEX NAME)



RN 49717-87-5 HCAPLUS
CN 2-Propenoic acid, ion(1-), homopolymer (9CI) (CA INDEX NAME)

CM 1

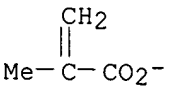
CRN 10344-93-1
CMF C3 H3 O2



RN 49717-97-7 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, ion(1-), homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 18358-13-9
CMF C4 H5 O2



L198 ANSWER 4 OF 38 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2004:964187 HCAPLUS
DN 142:159452
TI UV curing multi-component **polymer** blend **electrolyte**, **lithium** secondary battery, and preparation method thereof
IN Cho, Byeong Won; Cho, Won Il; Kim, Hyeong Seon; Kim, Un Seok; Kim, Yong Tae; Lee, Hui U.; Song, Min Gyu
PA Korea Institute of Science and Technology, S. Korea
SO Repub. Korean Kongkae Taeho Kongbo, No pp. given
CODEN: KRXXA7
DT Patent
LA Korean

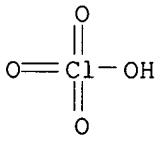
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	KR 2003005256	A	20030117	KR 2002-713109	20020930 <--
PRAI	KR 2002-713109		20020930 <--		

AB An UV-curing multi-component **polymer** blend **electrolyte**, a **lithium** secondary battery containing the **electrolyte** and their preparation methods are provided, to improve the adhesive strength, the mech. properties, the low and high temperature characteristic, the high rate discharge capacity, the lifetime, the capacity and the stability of a battery. The UV-curing multi-component **polymer** blend **electrolyte** comprises a function-I **polymer**; a function-II **polymer**; a function-III **polymer**; an organic **electrolyte** solution which is prepared by dissolving a **lithium** salt into an organic solvent; and optionally at least one selected from the group consisting of a plasticizer, a porous filler, a UV curing **initiator** and a curing accelerator. The function-I polymer is obtained by UV curing the ethylene glycol di(meth)acrylate oligomer CH2 = CR1COO(CH2CH2O)nCOCR2 = CH2, wherein R1 and R2 are independent each other and are H or Me group and n is an integer of 3-20; the function-II polymer is selected from the group consisting of polyacrylonitrile, poly(Me methacrylate) and their mixture; and the function-III polymer is selected from the group consisting of polyvinylidene fluoride, poly(vinyl chloride) and their mixture Preferably the **lithium** salt is selected from the group consisting of LiPF6, LiClO4, LiAsF6, LiBF4, LiCF3SO3, **Li** (CF3SO2)2N and their mixts.; and the organic solvent is selected from the group consisting of ethylene carbonate, propylene carbonate, di-Et carbonate, di-Me carbonate, ethylmethyl carbonate and their mixts.

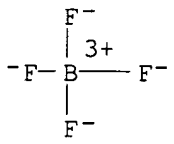
IT **7791-03-9**, uses **14283-07-9**, **Lithium** tetrafluoroborate **21324-40-3**, **Lithium** hexafluoroPhosphate **29935-35-1**, **Lithium** hexafluoroarsenate **33454-82-9**, **Lithium** trifluoromethanesulfonate **90076-65-6**, **Lithium** bis(trifluoromethanesulfonyl)imide
RL: DEV (Device component use); USES (Uses)
(UV curing multi-component **polymer** blend **electrolyte** **lithium** secondary battery and preparation method thereof)

RN 7791-03-9 HCAPLUS
CN Perchloric acid, lithium salt (8CI, 9CI) (CA INDEX NAME)



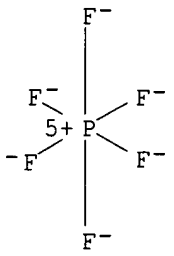
● Li

RN 14283-07-9 HCAPLUS
CN Borate(1-), tetrafluoro-, lithium (8CI, 9CI) (CA INDEX NAME)



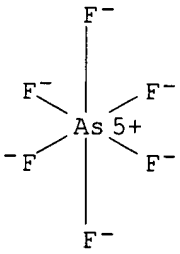
● Li^+

RN 21324-40-3 HCAPLUS
CN Phosphate(1-), hexafluoro-, lithium (8CI, 9CI) (CA INDEX NAME)



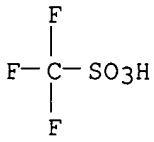
● Li^+

RN 29935-35-1 HCAPLUS
CN Arsenate(1-), hexafluoro-, lithium (8CI, 9CI) (CA INDEX NAME)



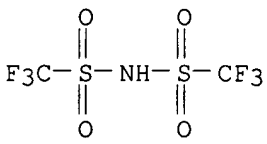
● Li^+

RN 33454-82-9 HCAPLUS
CN Methanesulfonic acid, trifluoro-, lithium salt (8CI, 9CI) (CA INDEX NAME)



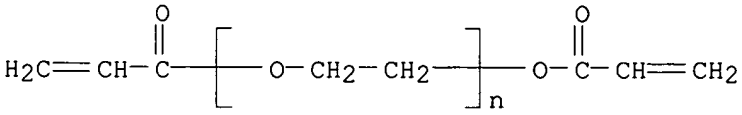
Li

RN 90076-65-6 HCAPLUS
CN Methanesulfonamide, 1,1,1-trifluoro-N-[(trifluoromethyl)sulfonyl]-, lithium salt (9CI) (CA INDEX NAME)

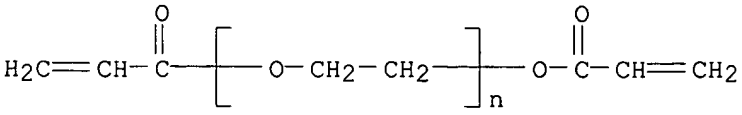


Li

IT **26570-48-9DP**, Poly(ethylene glycol) diacrylate, **homopolymers** and methacrylate derivative **copolymers**
RL: DEV (Device component use); POF (Polymer in formulation); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(UV curing multi-component **polymer** blend **electrolyte** **lithium** secondary battery and preparation method thereof)
RN 26570-48-9 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-(1-oxo-2-propenyl)-ω-[(1-oxo-2-propenyl)oxy]- (9CI) (CA INDEX NAME)



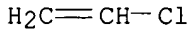
IT **26570-48-9**, Poly(ethylene glycol) diacrylate
RL: DEV (Device component use); RCT (Reactant); RACT (Reactant or reagent); USES (Uses)
(UV curing multi-component **polymer** blend **electrolyte** **lithium** secondary battery and preparation method thereof)
RN 26570-48-9 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-(1-oxo-2-propenyl)-ω-[(1-oxo-2-propenyl)oxy]- (9CI) (CA INDEX NAME)



IT **9002-86-2**
RL: DEV (Device component use); POF (Polymer in formulation); USES (Uses)
(blends with acrylic **polymers**; UV curing multi-component **polymer** blend **electrolyte lithium** secondary battery and preparation method thereof)
RN 9002-86-2 HCAPLUS
CN Ethene, chloro-, homopolymer (9CI) (CA INDEX NAME)

CM 1

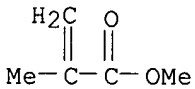
CRN 75-01-4
CMF C2 H3 Cl



IT **9011-14-7**, Poly(methyl methacrylate)
RL: DEV (Device component use); POF (Polymer in formulation); USES (Uses)
(**polymer** blends with vinyl and acrylic **polymers**; UV curing multi-component **polymer** blend **electrolyte lithium** secondary battery and preparation method thereof)
RN 9011-14-7 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, methyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 80-62-6
CMF C5 H8 O2



L198 ANSWER 5 OF 38 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2004:932934 HCAPLUS
DN 142:117618
TI **Lithium** secondary battery
IN Noh, Hyeong Gon
PA **Samsung SDI Co., Ltd., S. Korea**
SO Repub. Korean Kongkae Taeho Kongbo, No pp. given
CODEN: KRXXA7
DT Patent
LA Korean
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI KR 2002023487	A	20020329	KR 2000-55749	20000922 <--
PRAI KR 2000-55749		20000922 <--		

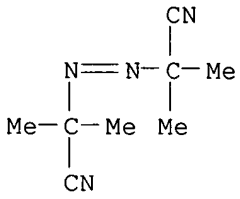
AB The battery comprises an electrode assembly with a cathode, an anode, and a separator between electrodes, an electrolyte and a case enclosure. The **polymer electrolyte** consists of a **polymerization initiator** 0.01-10, an organic solvent 10-90, **Li** salt 0.001-10, and a **polymer** 5-80 weight%. The polymer contains ≥1 monomers selected from isocyanate, epoxide, acrylate, ethylene

oxide and their pre-polymer, wherein the **initiator** is one or more compds. selected from benzophenone, benzoyl peroxide, acetyl peroxide, lauryl peroxide, dibutyltin acetate and azobisisobutyronitrile. The **polymer electrolyte** is obtained by **polymn** . at 50-200° after it is fed into the above case. The battery has high capacity and prevents swelling due to electrolyte to have no leakage of the electrolyte.

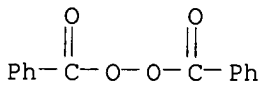
IT **7439-93-2, Lithium,** uses
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(**lithium** secondary battery)
RN 7439-93-2 HCAPLUS
CN Lithium (7CI, 8CI, 9CI) (CA INDEX NAME)

Li

IT **78-67-1,** Azobisisobutyronitrile **94-36-0,** Benzoyl peroxide, uses
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(polymerization **initiator; lithium** secondary battery)
RN 78-67-1 HCAPLUS
CN Propanenitrile, 2,2'-azobis[2-methyl- (9CI) (CA INDEX NAME)



RN 94-36-0 HCAPLUS
CN Peroxide, dibenzoyl (9CI) (CA INDEX NAME)



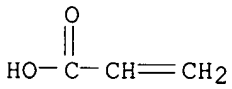
L198 ANSWER 6 OF 38 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2004:932512 HCAPLUS
DN 142:97439
TI **Electrolyte** composition containing **polymer** composed of acrylate monomer and **lithium** secondary battery using the same
IN Han, Se Jong; Kang, Byeong Hyeon; Kim, Gi Ho; Lee, Gyeong Hui
PA **Samsung SDI Co., Ltd., S. Korea**
SO Repub. Korean Kongkae Taeho Kongbo, No pp. given
CODEN: KRXXA7
DT Patent
LA Korean
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	KR 2002008581	A	20020131	KR 2000-42362	20000724 <--
PRAI	KR 2000-42362		20000724 <--		

AB An **electrolyte** composition containing **polymers** of acrylate monomer is provided, which is prepared by **polymerization** in the battery and has excellent ion conductibility, electrochem. stability, mech. properties and interface stability. Also, a **lithium** secondary battery using the electrolyte composition is provided. The **electrolyte** composition comprises (a) one or a mixture of two or more of acrylate monomers represented by formula 1, in which: R1 is hydrogen or an alkyl group having 1 to 5 carbon atoms; and R2 is an alkyl group having 1 to 20 carbon atoms, (b) a cross-linker of poly(ethyleneglycol) di(meth)acrylate represented by formula 2, in which R1 is hydrogen or an alkyl group having 1 to 5 carbon atoms; and n is 1 to 3000, (c) a **polymerization initiator** and (d) an organic solvent containing **lithium** salts. The molar ratio of the acrylate monomers and the cross-linker to the organic solvent containing **lithium** salts rate is 1:0.1 to 1:30.

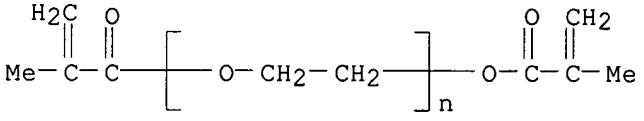
IT **79-10-7D**, Acrylic acid, C1-C5 alkyl derivs., alkyl esters, **polymers** containing, **lithium** ion complexes
7439-93-2D, Lithium, salts **25852-47-5D**,
Polyethylene glycol dimethacrylate, C1-C5 alkyl derivs., **polymers** containing, **lithium** ion complexes **26570-48-9D**,
Polyethylene glycol diacrylate, C1-C5 alkyl derivs., **polymers** containing, **lithium** ion complexes
RL: DEV (Device component use); USES (Uses)
(**electrolyte** composition containing **polymer** composed of acrylate monomer and **lithium** secondary battery using same)

RN 79-10-7 HCAPLUS
CN 2-Propenoic acid (9CI) (CA INDEX NAME)

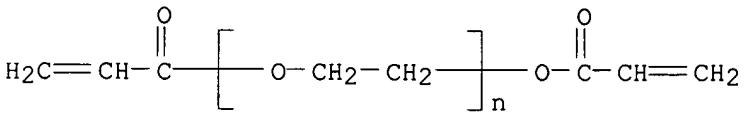


RN 7439-93-2 HCAPLUS
CN Lithium (7CI, 8CI, 9CI) (CA INDEX NAME)

RN 25852-47-5 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-(2-methyl-1-oxo-2-propenyl)-ω-[(2-methyl-1-oxo-2-propenyl)oxy]- (9CI) (CA INDEX NAME)



RN 26570-48-9 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-(1-oxo-2-propenyl)-ω-[(1-oxo-2-propenyl)oxy]- (9CI) (CA INDEX NAME)



IT **17341-24-1D**, complexes with acrylic **polymers**, uses
RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
(**electrolyte** composition containing **polymer** composed of acrylate monomer and **lithium** secondary battery using same)
RN 17341-24-1 HCAPLUS
CN Lithium, ion (Li1+) (8CI, 9CI) (CA INDEX NAME)

L198 ANSWER 7 OF 38 HCAPLUS COPYRIGHT 2006 ACS on STN
AN **2004:896521** HCAPLUS
DN 142:117581
TI Organic electrolyte and **lithium** secondary battery using the same
IN Kim, Cheon Su; Noh, Hwan Jin
PA **Samsung SDI Co., Ltd., S. Korea**
SO Repub. Korean Kongkae Taeho Kongbo, No pp. given
CODEN: KRXXA7
DT Patent
LA Korean
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	KR 2001095830	A	20011107	KR 2000-19248	20000412 <--
PRAI	KR 2000-19248		20000412 <--		

AB Provided are an organic **electrolyte** containing monomers for forming **polymers** to trap a mixed organic solvent and **lithium** salts, which does not volatilize at a high temperature, and a **lithium** secondary battery using the organic **electrolyte**. The organic **electrolyte** comprises the mixed organic solvent, the **lithium** salts, 1-20 weight% (based on the total weight of the organic **electrolyte**) of the monomers **polymerized** at 40-150 °C for forming the **polymers** to trap the mixed organic solvent and the **lithium** salts, and 0.01-2 weight% (based on the total weight of the organic **electrolyte**) of a **polymerization initiator** selected from the group consisting of benzoyl peroxide, acetyl peroxide, lauroyl peroxide, and azobis isobutyronitrile, wherein the monomer is acrylonitrile, Me acrylate, methacrylate, Me methacrylate, and a mixture thereof. The **lithium** secondary battery comprises a cathode containing **lithium**-containing metal oxides, an anode containing metal **lithium**, **lithium** alloy, or carbon material, a separator laid between the cathode and the anode, and the organic electrolyte.
IT **7439-93-2D**, **Lithium**, alloys
RL: DEV (Device component use); USES (Uses)
(anode; organic electrolyte and **lithium** secondary battery using same)
RN 7439-93-2 HCAPLUS
CN Lithium (7CI, 8CI, 9CI) (CA INDEX NAME)

Li

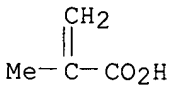
IT **7439-93-2, Lithium,** uses
RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
(anode; organic electrolyte and **lithium** secondary battery using same)
RN 7439-93-2 HCAPLUS
CN Lithium (7CI, 8CI, 9CI) (CA INDEX NAME)

Li

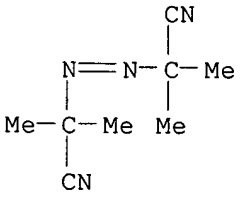
IT **7439-93-2D, Lithium,** salts
RL: DEV (Device component use); USES (Uses)
(in electrolyte; organic electrolyte and **lithium** secondary battery using same)
RN 7439-93-2 HCAPLUS
CN Lithium (7CI, 8CI, 9CI) (CA INDEX NAME)

Li

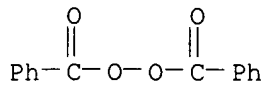
IT **79-41-4,** Methacrylic acid, uses
RL: DEV (Device component use); RCT (Reactant); RACT (Reactant or reagent); USES (Uses)
(organic electrolyte and **lithium** secondary battery using same)
RN 79-41-4 HCAPLUS
CN 2-Propenoic acid, 2-methyl- (9CI) (CA INDEX NAME)



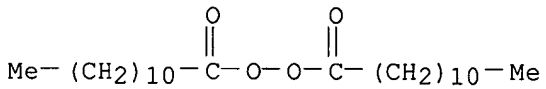
IT **78-67-1,** AIBN **94-36-0,** Benzoyl peroxide, uses
105-74-8, Lauroyl peroxide
RL: CAT (Catalyst use); DEV (Device component use); USES (Uses)
(**polymerization initiator**; organic **electrolyte** and **lithium** secondary battery using same)
RN 78-67-1 HCAPLUS
CN Propanenitrile, 2,2'-azobis[2-methyl- (9CI) (CA INDEX NAME)



RN 94-36-0 HCAPLUS
CN Peroxide, dibenzoyl (9CI) (CA INDEX NAME)



RN 105-74-8 HCAPLUS
CN Peroxide, bis(1-oxododecyl) (9CI) (CA INDEX NAME)



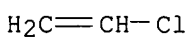
L198 ANSWER 8 OF 38 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2004:889634 HCAPLUS
DN 142:77538
TI Ultra-violet ray hardened **polymer electrolyte**, its manufacture, and secondary **lithium polymer** battery using the **electrolyte**
IN Cho, Byeong Won; Cho, Jin Yeon; Cho, Won Il; Rhee, Hee Woo; Song, Min Gyu; Yoon, Gyeong Seok
PA Korea Institute of Science and Technology, S. Korea
SO Repub. Korean Kongkae Taeho Kongbo, No pp. given
CODEN: KRXXA7
DT Patent
LA Korean
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI KR 2001048933	A	20010615	KR 1999-53817	19991130 <--
PRAI KR 1999-53817		19991130 <--		

AB The **electrolyte** comprises 5-95% 1st **polymer**, containing polyethylene glycol diacrylate and/or polyethylene glycol dimethacrylate; and 5-95% 2nd **polymer**, containing polyvinylidene fluoride **polymer**, polyacrylonitrile **polymer**, polymethyl methacrylate **polymer** and/or polyvinyl chloride **polymer**. The **electrolyte** is manufactured by preparing a **polymer** mixture of the 1st **polymer** and the 2nd **polymer**; mixing 10-90% **polymer** mixture with 0-20% silicon dioxide or alumina for 1-12 h; heating the mixture at 50-150°; swelling the heated mixture for 0.5-5 h; adding each 0.1-5.0% of an **initiator** for ultra-violet ray hardening and a hardening accelerant based on total weight of the **polymer** mixture to the swollen **polymer** mixture and then stirring the mixture for 0.5-30 min; casting the **polymer** mixture; and irradiating with UV rays. The battery has an electrode assembly, containing the above electrolyte between an anode and a cathode, terminals connected to the cathode and anode, and a battery case storing and sealing the assembly.
IT **9002-86-2**, Polyvinyl chloride **9011-14-7**, Polymethylmethacrylate **25721-76-0**, Polyethylene glycol dimethacrylate; **26570-48-9**, Polyethylene glycol diacrylate
RL: TEM (Technical or engineered material use); USES (Uses)
(compns. and manufacture of **polymer electrolytes** for secondary **lithium** batteries)
RN 9002-86-2 HCAPLUS
CN Ethene, chloro-, homopolymer (9CI) (CA INDEX NAME)

CM 1

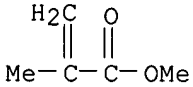
CRN 75-01-4
CMF C2 H3 Cl



RN 9011-14-7 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, methyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

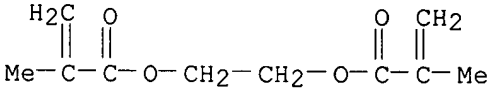
CRN 80-62-6
CMF C5 H8 O2



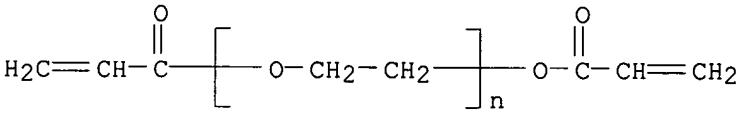
RN 25721-76-0 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 1,2-ethanediyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 97-90-5
CMF C10 H14 O4



RN 26570-48-9 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-(1-oxo-2-propenyl)-ω-[(1-oxo-2-propenyl)oxy]- (9CI) (CA INDEX NAME)



L198 ANSWER 9 OF 38 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2004:391689 HCAPLUS
DN 140:378071
TI **Electrolyte** compositions, acrylic **polymer electrolytes**, and small-sized secondary batteries
IN Uchida, Yuji; Endo, Takahiro; Nakamura, Tomoyuki
PA Sony Corp., Japan
SO Jpn. Kokai Tokkyo Koho, 20 pp.

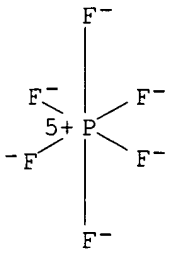
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2004139823	A2	20040513	JP 2002-302968	20021017 <--
PRAI	JP 2002-302968		20021017 <--		

AB The compns. contain **electrolyte** solution 100, (meth)acrylate-containing monomers free of ether groups 3-10, and peroxyester **polymerization initiators** 0.01-5 weight parts. **Polymer electrolytes** obtained by **polymerization** of the said composition and batteries including the **electrolytes** are also claimed. The batteries are small-sized and show high energy d.

IT **21324-40-3, Lithium** hexafluorophosphate
RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
(**electrolyte** salt; acrylic monomer compns. containing peroxyester **initiators** for preparation of **polymer electrolytes** for small-sized secondary batteries)

RN 21324-40-3 HCAPLUS
CN Phosphate(1-), hexafluoro-, lithium (8CI, 9CI) (CA INDEX NAME)



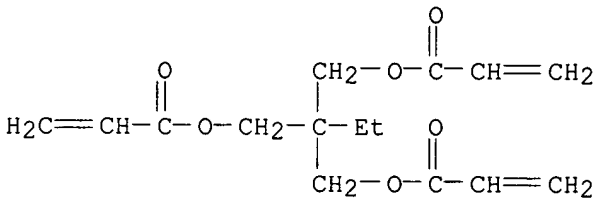
● Li^+

IT **67783-83-9P 685525-25-1P**
RL: DEV (Device component use); IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(**polymer electrolyte**; acrylic monomer compns. containing peroxyester **initiators** for preparation of **polymer electrolytes** for small-sized secondary batteries)

RN 67783-83-9 HCAPLUS
CN 2-Propenoic acid, 2,2-dimethyl-1,3-propanediyl ester, polymer with 2-ethyl-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate (9CI) (CA INDEX NAME)

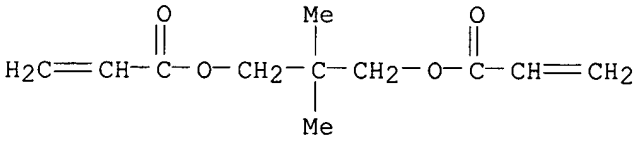
CM 1

CRN 15625-89-5
CMF C15 H20 O6



CM 2

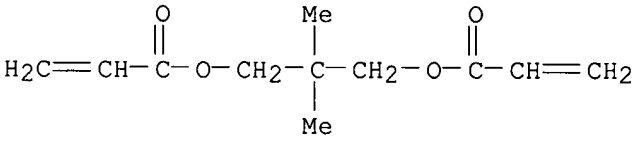
CRN 2223-82-7
CMF C11 H16 O4



RN 685525-25-1 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, butyl ester, polymer with 2,2-dimethyl-1,3-propanediyl di-2-propenoate and methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

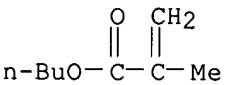
CM 1

CRN 2223-82-7
CMF C11 H16 O4



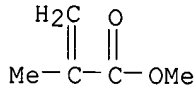
CM 2

CRN 97-88-1
CMF C8 H14 O2

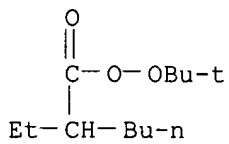


CM 3

CRN 80-62-6
CMF C5 H8 O2



IT **3006-82-4**, tert-Butylperoxy 2-ethylhexanoate
RL: CAT (Catalyst use); DEV (Device component use); USES (Uses)
(**polymerization initiator**; acrylic monomer compns. containing peroxyester **initiators** for preparation of **polymer electrolytes** for small-sized secondary batteries)
RN 3006-82-4 HCAPLUS
CN Hexaneperoxoic acid, 2-ethyl-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



L198 ANSWER 10 OF 38 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2004:252055 HCAPLUS
DN 140:256340
TI Anodes for **lithium** battery
IN Kim, Yong-tae; Choi, Su-suk; Choi, Yun-suk; **Lee, Kyoung-hee**
PA **Samsung Sdi Co., Ltd., S. Korea**
SO U.S. Pat. Appl. Publ., 10 pp.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 1

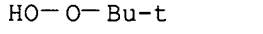
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2004058232	A1	20040325	US 2003-664157	20030917 <--
	KR 2004026208	A	20040330	KR 2002-57577	20020923 <--
	JP 2004119372	A2	20040415	JP 2003-308015	20030829 <--
	CN 1492523	A	20040428	CN 2003-158726	20030922 <--
PRAI	KR 2002-57577	A	20020923	<--	

AB A **lithium** neg. electrode for a **lithium** battery has good cycle life and capacity characteristics. The **lithium** neg. electrode comprises a **lithium** metal layer and a protective layer present on the **lithium** metal layer, where the protective layer includes an organosulfur compound An organosulfur compound having a thiol terminal group is preferred since such a compound can form a complex with **lithium** metal to enable coating to be carried out easily. The organosulfur compound has a large number of S or N elements having high electronegativity to form a complex with **lithium** ions, so it renders **lithium** ions to be deposited relatively evenly on the **lithium** metal surface, reducing dendrite formation.
IT **7439-93-2**, **Lithium**, uses
RL: DEV (Device component use); USES (Uses)
(anodes for **lithium** battery)
RN 7439-93-2 HCAPLUS
CN Lithium (7CI, 8CI, 9CI) (CA INDEX NAME)

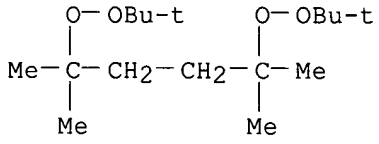
Li

IT **75-91-2**, tert-Butyl hydroperoxide **78-63-7**, 2,5-Dimethyl-2,5-di-(tert-butylperoxy)hexane **78-67-1**, Azobisisobutyronitrile **80-15-9**, Cumene hydroperoxide **80-43-3**, Dicumyl peroxide **94-36-0**, Dibenzoyl peroxide, uses **105-74-8**, Dilauroyl peroxide **110-05-4**, Di-tert-butyl peroxide **2167-23-9**, 2,2-Di-(tert-butylperoxy)butane **3025-88-5**, 2.5-Dihydroperoxy-2,5-dimethylhexane **16066-38-9**, Di(n-propyl)peroxy dicarbonate **16111-62-9**, Di(2-ethylhexyl)peroxy dicarbonate **19910-65-7**, Di(sec-butyl)peroxy dicarbonate **25721-76-0**, Polyethylene glycol dimethacrylate **25852-49-7**, Polypropylene glycol dimethacrylate **26570-48-9**, Poly(ethylene glycol diacrylate) **26748-47-0**, α-Cumylperoxyneodecanoate **52496-08-9**, Poly(propyleneglycoldiacrylate) **55794-20-2**, Ethyl 3,3-di-(tert-butylperoxy)butyrate **95732-35-7**
RL: MOA (Modifier or additive use); USES (Uses)
(anodes for **lithium** battery)

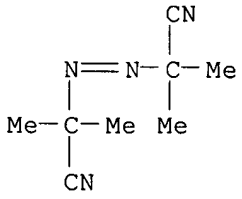
RN 75-91-2 HCAPLUS
CN Hydroperoxide, 1,1-dimethylethyl (9CI) (CA INDEX NAME)



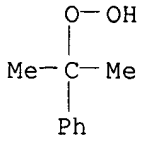
RN 78-63-7 HCAPLUS
CN Peroxide, (1,1,4,4-tetramethyl-1,4-butanediyl)bis[(1,1-dimethylethyl) (9CI) (CA INDEX NAME)



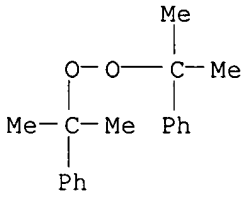
RN 78-67-1 HCAPLUS
CN Propanenitrile, 2,2'-azobis[2-methyl- (9CI) (CA INDEX NAME)



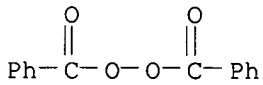
RN 80-15-9 HCAPLUS
CN Hydroperoxide, 1-methyl-1-phenylethyl (9CI) (CA INDEX NAME)



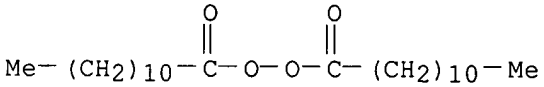
RN 80-43-3 HCAPLUS
CN Peroxide, bis(1-methyl-1-phenylethyl) (9CI) (CA INDEX NAME)



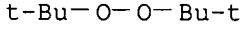
RN 94-36-0 HCAPLUS
CN Peroxide, dibenzoyl (9CI) (CA INDEX NAME)



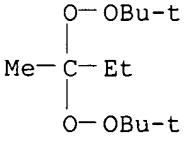
RN 105-74-8 HCAPLUS
CN Peroxide, bis(1-oxododecyl) (9CI) (CA INDEX NAME)



RN 110-05-4 HCAPLUS
CN Peroxide, bis(1,1-dimethylethyl) (9CI) (CA INDEX NAME)

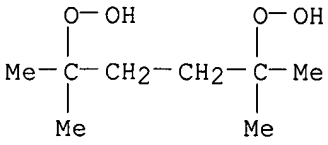


RN 2167-23-9 HCAPLUS
CN Peroxide, (1-methylpropylidene)bis[(1,1-dimethylethyl) (9CI) (CA INDEX NAME)

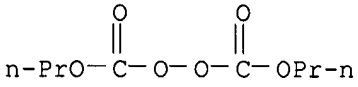


RN 3025-88-5 HCAPLUS
CN Hydroperoxide, (1,1,4,4-tetramethyl-1,4-butanediyl)bis- (9CI) (CA INDEX

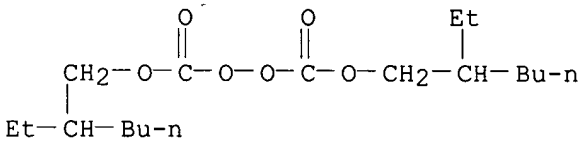
NAME)



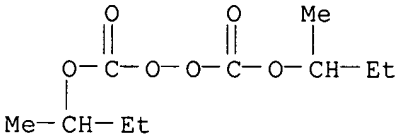
RN 16066-38-9 HCAPLUS
CN Peroxydicarbonic acid, dipropyl ester (8CI, 9CI) (CA INDEX NAME)



RN 16111-62-9 HCAPLUS
CN Peroxydicarbonic acid, bis(2-ethylhexyl) ester (7CI, 8CI, 9CI) (CA INDEX NAME)



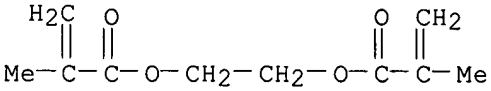
RN 19910-65-7 HCAPLUS
CN Peroxydicarbonic acid, bis(1-methylpropyl) ester (9CI) (CA INDEX NAME)



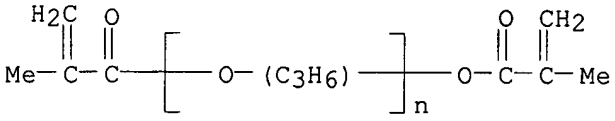
RN 25721-76-0 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 1,2-ethanediyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

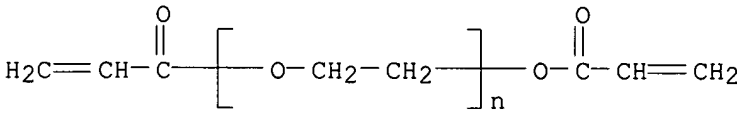
CRN 97-90-5
CMF C10 H14 O4



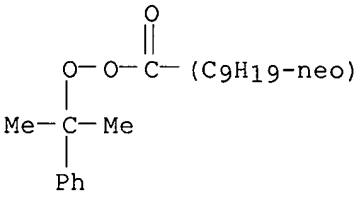
RN 25852-49-7 HCAPLUS
CN Poly[oxy(methyl-1,2-ethanediyl)], α-(2-methyl-1-oxo-2-propenyl)-ω-[(2-methyl-1-oxo-2-propenyl)oxy]- (9CI) (CA INDEX NAME)



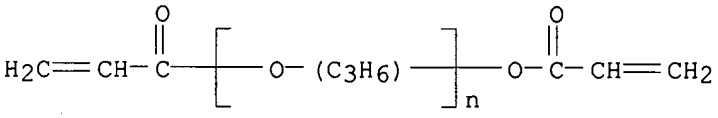
RN 26570-48-9 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-(1-oxo-2-propenyl)-ω-[(1-oxo-2-propenyl)oxy]- (9CI) (CA INDEX NAME)



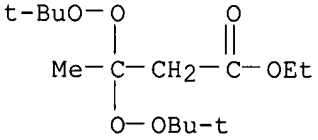
RN 26748-47-0 HCAPLUS
CN Neodecaneperoxoic acid, 1-methyl-1-phenylethyl ester (9CI) (CA INDEX NAME)



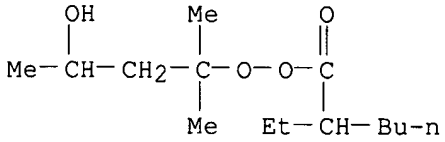
RN 52496-08-9 HCAPLUS
CN Poly[oxy(methyl-1,2-ethanediyl)], α-(1-oxo-2-propenyl)-ω-[(1-oxo-2-propenyl)oxy]- (9CI) (CA INDEX NAME)



RN 55794-20-2 HCAPLUS
CN Butanoic acid, 3,3-bis[(1,1-dimethylethyl)dioxy]-, ethyl ester (9CI) (CA INDEX NAME)



RN 95732-35-7 HCAPLUS
CN Hexaneperoxoic acid, 2-ethyl-, 3-hydroxy-1,1-dimethylbutyl ester (9CI) (CA INDEX NAME)



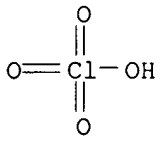
L198 ANSWER 11 OF 38 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2004:182343 HCAPLUS
DN 140:202488
TI **Polymer electrolyte** for **lithium** secondary battery with improved safety and reduced swelling
IN Lee, Yong-beom
PA **Samsung Sdi Co.,ltd., S. Korea**
SO U.S. Pat. Appl. Publ., 8 pp.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2004043298	A1	20040304	US 2003-440245	20030519 <--
	KR 2004020631	A	20040309	KR 2002-52280	20020831 <--
	CN 1479401	A	20040303	CN 2003-152463	20030704 <--
PRAI	KR 2002-52280	A	20020831 <--		

AB The invention concerns a **polymer electrolyte** that extends the cycle life, improves the safety, and reduces the swelling of a battery, compared with a **polymer electrolyte** containing a poly(alkylene oxide) **polymer**. Also, a **lithium** battery utilizes the **polymer electrolyte**. The **polymer electrolyte** contains a **polymerized** product from a **polymer electrolyte** forming composition containing a multifunctional isocyanurate monomer of a particular structure, a **lithium** salt, and a nonaq. organic solvent.
IT **7439-93-2, Lithium**, uses **7791-03-9, Lithium** perchlorate **12190-79-3**, Cobalt **lithium** oxide colio2 **14283-07-9, Lithium** tetrafluoroborate **21324-40-3, Lithium** hexafluorophosphate **29935-35-1, Lithium** hexafluoroarsenate **33454-82-9, Lithium** triflate **39300-70-4, Lithium** nickel oxide **39457-42-6, Lithium** manganese oxide **51177-06-1**, Chromium **lithium** oxide **52627-24-4**, Cobalt **lithium** oxide **90076-65-6 131651-65-5 132843-44-8 654675-99-7, Lithium** boride fluoride libf6
RL: DEV (Device component use); USES (Uses)
(**polymer electrolyte** for **lithium** secondary battery with improved safety and reduced swelling)
RN 7439-93-2 HCAPLUS
CN Lithium (7CI, 8CI, 9CI) (CA INDEX NAME)

Li

RN 7791-03-9 HCAPLUS
CN Perchloric acid, lithium salt (8CI, 9CI) (CA INDEX NAME)

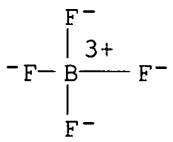


● Li

RN 12190-79-3 HCAPLUS
CN Cobalt lithium oxide (CoLiO2) (9CI) (CA INDEX NAME)

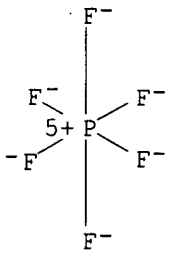
Component	Ratio	Component Registry Number
O	2	17778-80-2
Co	1	7440-48-4
Li	1	7439-93-2

RN 14283-07-9 HCAPLUS
CN Borate(1-), tetrafluoro-, lithium (8CI, 9CI) (CA INDEX NAME)



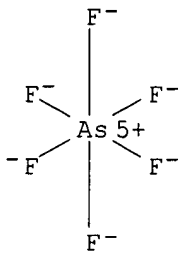
● Li^+

RN 21324-40-3 HCAPLUS
CN Phosphate(1-), hexafluoro-, lithium (8CI, 9CI) (CA INDEX NAME)



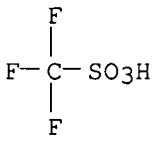
● Li^+

RN 29935-35-1 HCAPLUS
CN Arsenate(1-), hexafluoro-, lithium (8CI, 9CI) (CA INDEX NAME)



● Li^+

RN 33454-82-9 HCAPLUS
CN Methanesulfonic acid, trifluoro-, lithium salt (8CI, 9CI) (CA INDEX NAME)



● Li

RN 39300-70-4 HCAPLUS
CN Lithium nickel oxide (9CI) (CA INDEX NAME)

Component	Ratio	Component Registry Number
O	x	17778-80-2
Ni	x	7440-02-0
Li	x	7439-93-2

RN 39457-42-6 HCAPLUS
CN Lithium manganese oxide (9CI) (CA INDEX NAME)

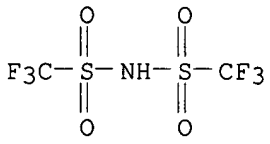
Component	Ratio	Component Registry Number
O	x	17778-80-2
Mn	x	7439-96-5
Li	x	7439-93-2

RN 51177-06-1 HCAPLUS
CN Chromium lithium oxide (9CI) (CA INDEX NAME)

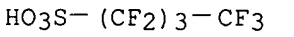
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 52627-24-4 HCAPLUS
CN Cobalt lithium oxide (9CI) (CA INDEX NAME)

Component	Ratio	Component Registry Number
O	x	17778-80-2
Co	x	7440-48-4
Li	x	7439-93-2

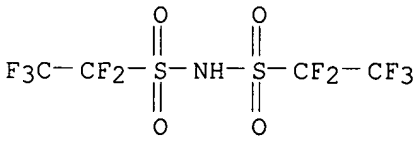
RN 90076-65-6 HCAPLUS
CN Methanesulfonamide, 1,1,1-trifluoro-N-[(trifluoromethyl)sulfonyl]-, lithium salt (9CI) (CA INDEX NAME)



RN 131651-65-5 HCAPLUS
CN 1-Butanesulfonic acid, 1,1,2,2,3,3,4,4,4-nonafluoro-, lithium salt (9CI) (CA INDEX NAME)



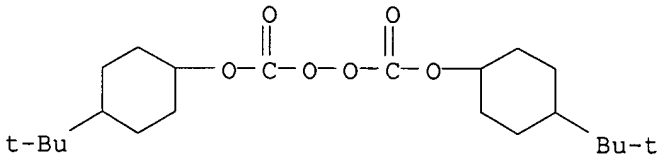
RN 132843-44-8 HCAPLUS
CN Ethanesulfonamide, 1,1,2,2,2-pentafluoro-N-[(pentafluoroethyl)sulfonyl]-, lithium salt (9CI) (CA INDEX NAME)



RN 654675-99-7 HCAPLUS
CN Lithium boride fluoride (LiBF6) (9CI) (CA INDEX NAME)

Component	Ratio	Component Registry Number
F	6	14762-94-8
B	1	7440-42-8
Li	1	7439-93-2

IT **15520-11-3**, Di(4-tert-butylcyclohexyl)peroxy dicarbonate
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PROC (Process)
(**polymerization initiator; polymer electrolyte** for **lithium** secondary battery with improved safety and reduced swelling)
RN 15520-11-3 HCAPLUS
CN Peroxydicarbonic acid, bis[4-(1,1-dimethylethyl)cyclohexyl] ester (9CI) (CA INDEX NAME)



L198 ANSWER 12 OF 38 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2004:119843 HCAPLUS
DN 140:149224
TI Nonaqueous electrolytic solution with improved safety for **lithium** battery
IN Kim, Jun-ho; Lee, Ha-young; Choy, Sang-hoon; Kim, Ho-sung
PA **Samsung SDI Co., Ltd., S. Korea**
SO U.S. Pat. Appl. Publ., 12 pp.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2004029018	A1	20040212	US 2003-637554	20030811 <--
	KR 2004015420	A	20040219	KR 2002-47510	20020812 <--
	JP 2004079532	A2	20040311	JP 2003-290946	20030808 <--
	CN 1495960	A	20040512	CN 2003-158672	20030812 <--
PRAI	KR 2002-47510	A	20020812 <--		

AB A nonaq. electrolytic solution and a **lithium** battery employing the same include a **lithium** salt, an organic solvent, and a halogenated benzene compound The use of the nonaq. **electrolytic** solution causes formation of a **polymer** by oxidative decomposition of the **electrolytic** solution even if a sharp voltage increase occurs due to overcharging of the battery, leading to consumption of an overcharge current, thus protecting the battery.
IT **7439-93-2D, Lithium**, salt **12190-79-3**, Cobalt **lithium** oxide colio2
RL: DEV (Device component use); USES (Uses)
(nonaq. electrolytic solution with improved safety for **lithium** battery)
RN 7439-93-2 HCAPLUS
CN Lithium (7CI, 8CI, 9CI) (CA INDEX NAME)

Li

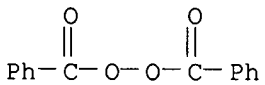
RN 12190-79-3 HCAPLUS

CN Cobalt lithium oxide (CoLiO2) (9CI) (CA INDEX NAME)

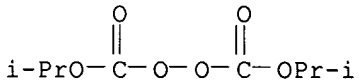
Component	Ratio	Component Registry Number
O	2	17778-80-2
Co	1	7440-48-4
Li	1	7439-93-2

IT **94-36-0**, Benzoylperoxide, uses **105-64-6**, Diisopropyl peroxy dicarbonate **105-74-8**, Lauroyl peroxide **1561-49-5**, Dicyclohexyl peroxy dicarbonate **1712-87-4**, m-Toluoyl peroxide **3006-82-4**, tert-Butylperoxy-2-ethylhexanoate **14666-78-5** **15520-11-3**, Bis(4-tert-butylcyclohexyl) peroxydicarbonate **21324-40-3**, **Lithium** hexafluorophosphate **32752-09-3**, Isobutyl peroxide **49717-97-7**, 2-Propenoic acid, 2-methyl-, ion(1-) **homopolymer**, uses **92177-99-6**, 3,3,5-Trimethylhexanoylperoxide
RL: MOA (Modifier or additive use); USES (Uses)
(nonaq. **electrolytic** solution with improved safety for **lithium** battery)

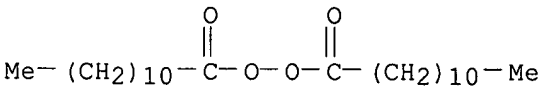
RN 94-36-0 HCAPLUS
CN Peroxide, dibenzoyl (9CI) (CA INDEX NAME)



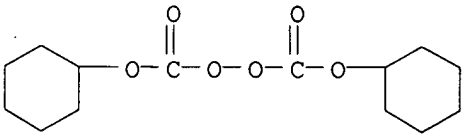
RN 105-64-6 HCAPLUS
CN Peroxydicarbonic acid, bis(1-methylethyl) ester (9CI) (CA INDEX NAME)



RN 105-74-8 HCAPLUS
CN Peroxide, bis(1-oxododecyl) (9CI) (CA INDEX NAME)

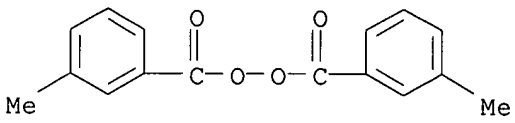


RN 1561-49-5 HCAPLUS
CN Peroxydicarbonic acid, dicyclohexyl ester (6CI, 8CI, 9CI) (CA INDEX NAME)

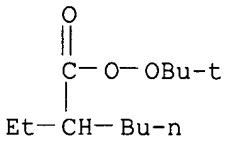


RN 1712-87-4 HCAPLUS

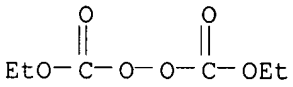
CN Peroxide, bis(3-methylbenzoyl) (9CI) (CA INDEX NAME)



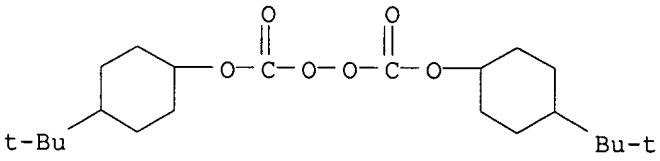
RN 3006-82-4 HCAPLUS
CN Hexaneperoxoic acid, 2-ethyl-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



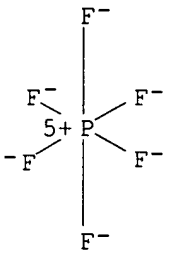
RN 14666-78-5 HCAPLUS
CN Peroxydicarbonic acid, diethyl ester (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



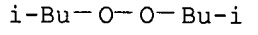
RN 15520-11-3 HCAPLUS
CN Peroxydicarbonic acid, bis[4-(1,1-dimethylethyl)cyclohexyl] ester (9CI) (CA INDEX NAME)



RN 21324-40-3 HCAPLUS
CN Phosphate(1-), hexafluoro-, lithium (8CI, 9CI) (CA INDEX NAME)



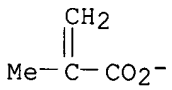
RN 32752-09-3 HCAPLUS
CN Peroxide, bis(2-methylpropyl) (9CI) (CA INDEX NAME)



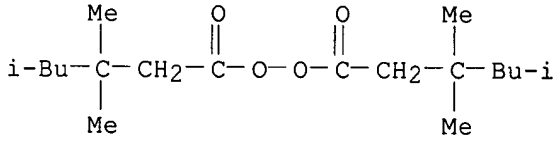
RN 49717-97-7 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, ion(1-), homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 18358-13-9
CMF C4 H5 O2



RN 92177-99-6 HCAPLUS
CN Peroxide, bis(3,3,5-trimethyl-1-oxohexyl) (9CI) (CA INDEX NAME)



L198 ANSWER 13 OF 38 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2004:119841 HCAPLUS
DN 140:166772
TI **Polymer electrolyte** for **lithium**-sulfur battery
IN **Hwang, Duck-chul; Lee, Kyoung-hee**
PA **Samsung Sdi Co., Ltd., S. Korea**
SO U.S. Pat. Appl. Publ., 15 pp.
CODEN: USXXCO
DT Patent

LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2004029016	A1	20040212	US 2003-635122	20030806 <--
	KR 2004014163	A	20040214	KR 2003-28968	20030507 <--
	JP 2004071560	A2	20040304	JP 2003-279998	20030725 <--
	CN 1495956	A	20040512	CN 2003-127275	20030807 <--
PRAI	KR 2002-46580	A	20020807 <--		
	KR 2003-28968	A	20030507 <--		

AB Disclosed is a **polymer electrolyte** for a **lithium** sulfur battery. The electrolyte includes a monomer with a methacrylate group, an **initiator**, an organic solvent, and a **lithium** salt.

IT **7439-93-2, Lithium**, uses **7439-93-2D, Lithium**, intercalation compound **74432-42-1, Lithium** polysulfide **90076-65-6**
RL: DEV (Device component use); USES (Uses)
(**polymer electrolyte** for **lithium**-sulfur battery)

RN 7439-93-2 HCAPLUS
CN Lithium (7CI, 8CI, 9CI) (CA INDEX NAME)

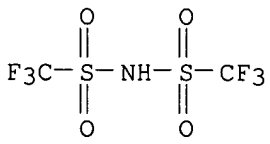
Li

RN 7439-93-2 HCAPLUS
CN Lithium (7CI, 8CI, 9CI) (CA INDEX NAME)

Li

RN 74432-42-1 HCAPLUS
CN Lithium sulfide (Li2(Sx)) (9CI) (CA INDEX NAME)

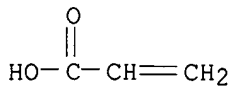
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 90076-65-6 HCAPLUS
CN Methanesulfonamide, 1,1,1-trifluoro-N-[(trifluoromethyl)sulfonyl]-, lithium salt (9CI) (CA INDEX NAME)



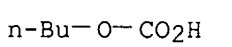
● Li

IT **79-10-7DP**, Acrylic acid, reaction product with dipentaerythritol and ε-caprolactone and butylcarbonic acid **10411-26-4DP**, reaction product with dipentaerythritol and ε-caprolactone and acrylic acid
RL: DEV (Device component use); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)

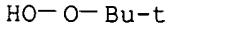
(**polymer electrolyte** for **lithium**-sulfur battery)
RN 79-10-7 HCAPLUS
CN 2-Propenoic acid (9CI) (CA INDEX NAME)



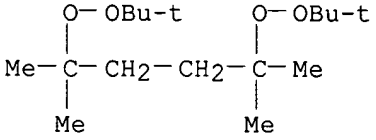
RN 10411-26-4 HCAPLUS
CN Carbonic acid, monobutyl ester (8CI, 9CI) (CA INDEX NAME)



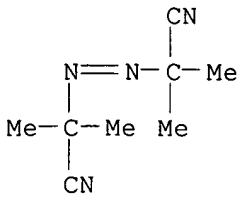
IT **75-91-2**, tert-Butylhydroperoxide **78-63-7**, 2,5-Dimethyl-2,5-di(tert-butylperoxy)hexane **78-67-1**, Azobisisobutyronitrile **80-15-9**, Cumene hydroperoxide **80-43-3**, Dicumyl peroxide **94-36-0**, Benzoyl peroxide, processes **105-64-6**, Diisopropyl peroxy dicarbonate **105-74-8**, Lauroyl peroxide **110-05-4**, Di-tert-butyl peroxide **1561-49-5**, Dicyclo hexylperoxy dicarbonate **1712-87-4**, m-Toluoyl peroxide **2167-23-9**, 2,2-Di(tert-butylperoxy)butane **3006-82-4**, tert-Butyl peroxy-2-ethyl hexanoate **3025-88-5**, 2,5-Dihydroperoxy-2,5-dimethylhexane **14666-78-5 15520-11-3**, Bis(4-tert-butylcyclohexyl)peroxy dicarbonate **16066-38-9**, Di(n-propyl)peroxy-dicarbonate **16111-62-9**, Di(2-ethylhexyl)peroxydicarbonate **19910-65-7**, Di(sec-butyl)peroxy dicarbonate **26748-47-0**, α-Cumyl peroxy neodecanoate **32752-09-3**, Isobutyl peroxide **52373-75-8** **55794-20-2**, Ethyl 3,3-di(tert-butylperoxy)butyrate **92177-99-6**, 3,3,5-Trimethylhexanoyl peroxide **95732-35-7** **116657-72-8**, tert-Butyl neodecanoate **118416-46-9**
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PROC (Process)
(**polymerization initiator**; **polymer electrolyte** for **lithium**-sulfur battery)
RN 75-91-2 HCAPLUS
CN Hydroperoxide, 1,1-dimethylethyl (9CI) (CA INDEX NAME)



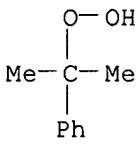
RN 78-63-7 HCAPLUS
CN Peroxide, (1,1,4,4-tetramethyl-1,4-butanediyl)bis[(1,1-dimethylethyl) (9CI) (CA INDEX NAME)



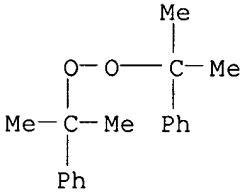
RN 78-67-1 HCAPLUS
CN Propanenitrile, 2,2'-azobis[2-methyl- (9CI) (CA INDEX NAME)



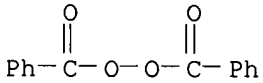
RN 80-15-9 HCAPLUS
CN Hydroperoxide, 1-methyl-1-phenylethyl (9CI) (CA INDEX NAME)



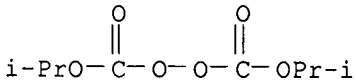
RN 80-43-3 HCAPLUS
CN Peroxide, bis(1-methyl-1-phenylethyl) (9CI) (CA INDEX NAME)



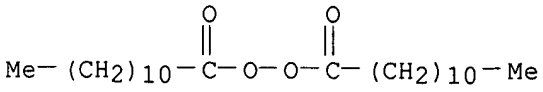
RN 94-36-0 HCAPLUS
CN Peroxide, dibenzoyl (9CI) (CA INDEX NAME)



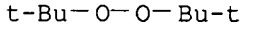
RN 105-64-6 HCAPLUS
CN Peroxydicarbonic acid, bis(1-methylethyl) ester (9CI) (CA INDEX NAME)



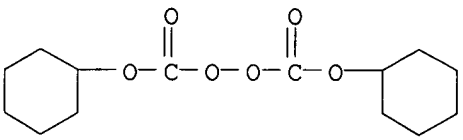
RN 105-74-8 HCAPLUS
CN Peroxide, bis(1-oxododecyl) (9CI) (CA INDEX NAME)



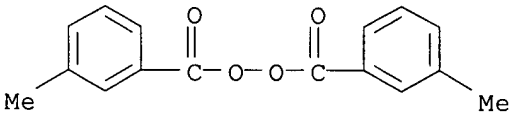
RN 110-05-4 HCAPLUS
CN Peroxide, bis(1,1-dimethylethyl) (9CI) (CA INDEX NAME)



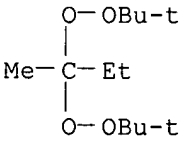
RN 1561-49-5 HCAPLUS
CN Peroxydicarbonic acid, dicyclohexyl ester (6CI, 8CI, 9CI) (CA INDEX NAME)



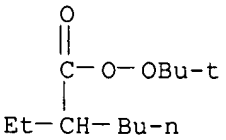
RN 1712-87-4 HCAPLUS
CN Peroxide, bis(3-methylbenzoyl) (9CI) (CA INDEX NAME)



RN 2167-23-9 HCAPLUS
CN Peroxide, (1-methylpropylidene)bis[(1,1-dimethylethyl) (9CI) (CA INDEX NAME)

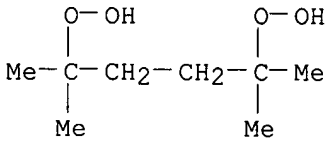


RN 3006-82-4 HCAPLUS
CN Hexaneperoxoic acid, 2-ethyl-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

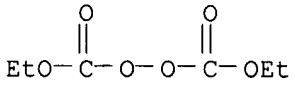


RN 3025-88-5 HCAPLUS
CN Hydroperoxide, (1,1,4,4-tetramethyl-1,4-butanediyl)bis- (9CI) (CA INDEX

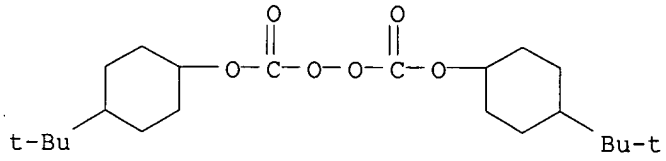
NAME)



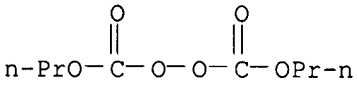
RN 14666-78-5 HCAPLUS
CN Peroxydicarbonic acid, diethyl ester (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



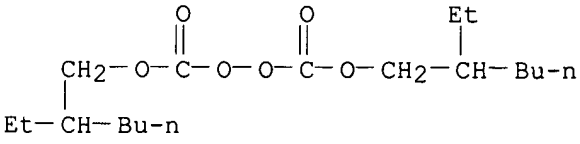
RN 15520-11-3 HCAPLUS
CN Peroxydicarbonic acid, bis[4-(1,1-dimethylethyl)cyclohexyl] ester (9CI) (CA INDEX NAME)



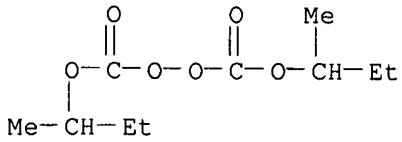
RN 16066-38-9 HCAPLUS
CN Peroxydicarbonic acid, dipropyl ester (8CI, 9CI) (CA INDEX NAME)



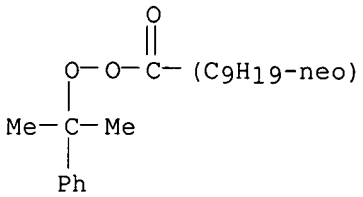
RN 16111-62-9 HCAPLUS
CN Peroxydicarbonic acid, bis(2-ethylhexyl) ester (7CI, 8CI, 9CI) (CA INDEX NAME)



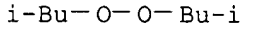
RN 19910-65-7 HCAPLUS
CN Peroxydicarbonic acid, bis(1-methylpropyl) ester (9CI) (CA INDEX NAME)



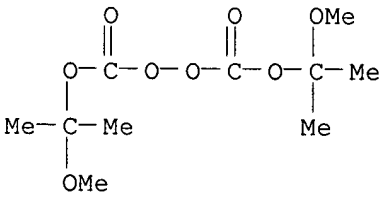
RN 26748-47-0 HCAPLUS
CN Neodecaneperoxoic acid, 1-methyl-1-phenylethyl ester (9CI) (CA INDEX NAME)



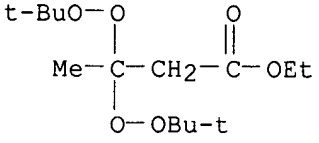
RN 32752-09-3 HCAPLUS
CN Peroxide, bis(2-methylpropyl) (9CI) (CA INDEX NAME)



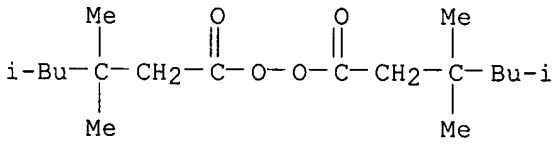
RN 52373-75-8 HCAPLUS
CN Peroxydicarbonic acid, bis(1-methoxy-1-methylethyl) ester (9CI) (CA INDEX NAME)



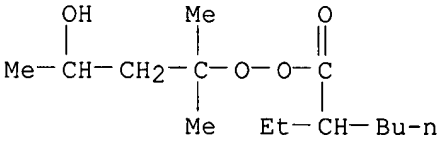
RN 55794-20-2 HCAPLUS
CN Butanoic acid, 3,3-bis[(1,1-dimethylethyl)dioxy]-, ethyl ester (9CI) (CA INDEX NAME)



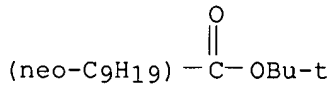
RN 92177-99-6 HCAPLUS
CN Peroxide, bis(3,3,5-trimethyl-1-oxohexyl) (9CI) (CA INDEX NAME)



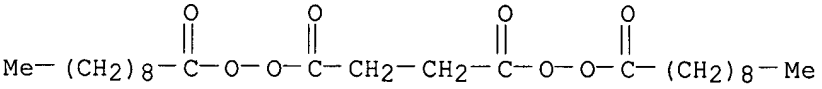
RN 95732-35-7 HCAPLUS
CN Hexaneperoxoic acid, 2-ethyl-, 3-hydroxy-1,1-dimethylbutyl ester (9CI) (CA INDEX NAME)



RN 116657-72-8 HCAPLUS
CN Neodecanoic acid, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 118416-46-9 HCAPLUS
CN Peroxide, (1,4-dioxo-1,4-butanediyl)bis[(1-oxodecyl) (9CI) (CA INDEX NAME)



L198 ANSWER 14 OF 38 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2004:59637 HCAPLUS
DN 140:79861
TI Method of fabrication of **lithium** secondary battery
IN Lee, Jin-young; **Lee, Kyoung-hee**
PA S. Korea
SO U.S. Pat. Appl. Publ., 7 pp.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2004013944	A1	20040122	US 2003-617811	20030714 <--
	KR 2004006781	A	20040124	KR 2002-41169	20020715 <--
	JP 2004039642	A2	20040205	JP 2003-274506	20030715 <--
	CN 1501542	A	20040602	CN 2003-165003	20030715 <--
PRAI	KR 2002-41169	A	20020715 <--		

AB A **lithium** secondary battery of the present invention comprises a pos. electrode; a neg. electrode; a separator interposed between the pos.

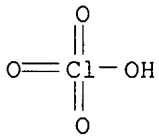
and neg. electrodes; and an **electrolyte** on the separator, wherein the **electrolyte** includes a nonaq. organic solvent, a **lithium** salt, and a linear **polymer** having P=O bonds. The electrolyte improves the swelling characteristics of **lithium** secondary batteries. A **lithium** secondary battery with the electrolyte and a method for preparing the electrolyte and battery is described.

IT **7447-41-8, Lithium** chloride (LiCl), uses
7791-03-9, Lithium perchlorate **10377-51-2, Lithium** iodide (LiI) **14024-11-4, Lithium** tetrachloroaluminate **14283-07-9, Lithium** tetrafluoroborate **18424-17-4, Lithium** hexafluoroantimonate **21324-40-3, Lithium** hexafluorophosphate **29935-35-1, Lithium** hexafluoroarsenate **33454-82-9, Lithium** triflate **37220-89-6, Lithium** aluminate **90076-65-6** **131651-65-5, Lithium** nonafluorobutanesulfonate
RL: DEV (Device component use); USES (Uses)
(method of fabrication of **lithium** secondary battery)

RN 7447-41-8 HCAPLUS
CN Lithium chloride (LiCl) (9CI) (CA INDEX NAME)

Cl—Li

RN 7791-03-9 HCAPLUS
CN Perchloric acid, lithium salt (8CI, 9CI) (CA INDEX NAME)

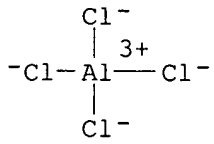


● Li

RN 10377-51-2 HCAPLUS
CN Lithium iodide (LiI) (9CI) (CA INDEX NAME)

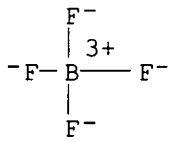
I—Li

RN 14024-11-4 HCAPLUS
CN Aluminate(1-), tetrachloro-, lithium, (T-4)- (9CI) (CA INDEX NAME)



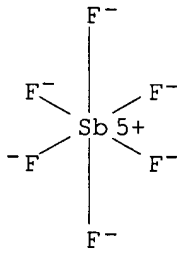
● Li^+

RN 14283-07-9 HCAPLUS
CN Borate(1-), tetrafluoro-, lithium (8CI, 9CI) (CA INDEX NAME)



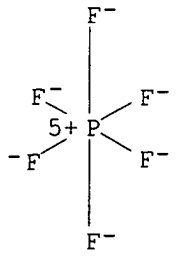
● Li^+

RN 18424-17-4 HCAPLUS
CN Antimonate(1-), hexafluoro-, lithium, (OC-6-11)- (9CI) (CA INDEX NAME)



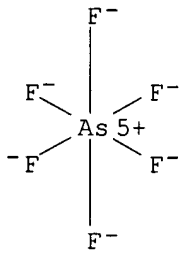
● Li^+

RN 21324-40-3 HCAPLUS
CN Phosphate(1-), hexafluoro-, lithium (8CI, 9CI) (CA INDEX NAME)



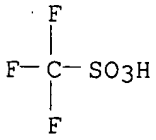
● Li^+

RN 29935-35-1 HCAPLUS
CN Arsenate(1-), hexafluoro-, lithium (8CI, 9CI) (CA INDEX NAME)



● Li^+

RN 33454-82-9 HCAPLUS
CN Methanesulfonic acid, trifluoro-, lithium salt (8CI, 9CI) (CA INDEX NAME)



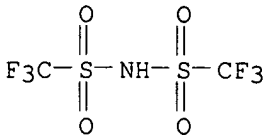
● Li

RN 37220-89-6 HCAPLUS
CN Aluminum lithium oxide (9CI) (CA INDEX NAME)

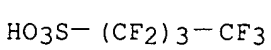
Component	Ratio	Component Registry Number
O	x	17778-80-2
Li	x	7439-93-2

Al | x | 7429-90-5

RN 90076-65-6 HCAPLUS
CN Methanesulfonamide, 1,1,1-trifluoro-N-[(trifluoromethyl)sulfonyl]-, lithium salt (9CI) (CA INDEX NAME)



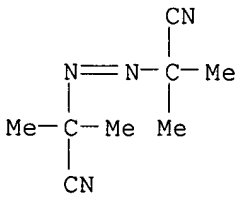
RN 131651-65-5 HCAPLUS
CN 1-Butanesulfonic acid, 1,1,2,2,3,3,4,4,4-nonafluoro-, lithium salt (9CI) (CA INDEX NAME)



IT **7439-93-2**, **Lithium**, uses
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process); USES (Uses)
(method of fabrication of **lithium** secondary battery)
RN 7439-93-2 HCAPLUS
CN Lithium (7CI, 8CI, 9CI) (CA INDEX NAME)

Li

IT **78-67-1**, Azobisisobutyronitrile
RL: MOA (Modifier or additive use); USES (Uses)
(method of fabrication of **lithium** secondary battery)
RN 78-67-1 HCAPLUS
CN Propanenitrile, 2,2'-azobis[2-methyl- (9CI) (CA INDEX NAME)



L198 ANSWER 15 OF 38 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2003:989967 HCAPLUS

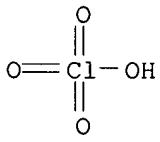
DN 140:29515
TI **Polymer electrolyte** with effective leakage resistance for **lithium** battery
IN **Lee, Kyoung-hee**; Kim, Ki-ho
PA **Samsung SDI Co., Ltd, S. Korea**
SO U.S. Pat. Appl. Publ., 11 pp.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2003232240	A1	20031218	US 2003-461489	20030616 <--
	KR 2003097009	A	20031231	KR 2002-34130	20020618 <--
	CN 1479402	A	20040303	CN 2003-152467	20030618 <--
PRAI	KR 2002-34130	A	20020618 <--		

AB A **polymer electrolyte** has improved leakage resistance and a **lithium** battery uses the **polymer electrolyte**. The **polymer electrolyte** includes a **polymerization** product of a **polymer electrolyte** forming composition that includes a multifunctional acrylate based compound, at least one selected from the group consisting of polyalkylene glycol di(meth)acrylates and polyalkylene glycol (meth)acrylates, and an **electrolytic** solution containing a **lithium** salt and an organic solvent.

IT **7791-03-9, Lithium** perchlorate **12190-79-3**, Cobalt **lithium** oxide colio2 **14283-07-9**, **Lithium** tetrafluoroborate **21324-40-3, Lithium** hexafluorophosphate **33454-82-9, Lithium** triflate **90076-65-6**
RL: DEV (Device component use); USES (Uses)
(**polymer electrolyte** with effective leakage resistance for **lithium** battery)

RN 7791-03-9 HCAPLUS
CN Perchloric acid, lithium salt (8CI, 9CI) (CA INDEX NAME)

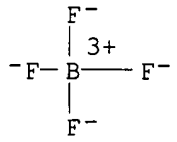


● Li

RN 12190-79-3 HCAPLUS
CN Cobalt lithium oxide (CoLiO2) (9CI) (CA INDEX NAME)

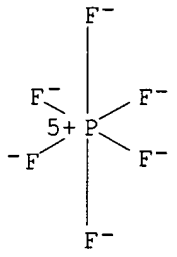
Component	Ratio	Component Registry Number
O	2	17778-80-2
Co	1	7440-48-4
Li	1	7439-93-2

RN 14283-07-9 HCAPLUS
CN Borate(1-), tetrafluoro-, lithium (8CI, 9CI) (CA INDEX NAME)



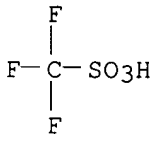
● Li^+

RN 21324-40-3 HCAPLUS
CN Phosphate(1-), hexafluoro-, lithium (8CI, 9CI) (CA INDEX NAME)



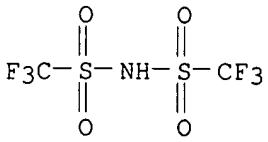
● Li^+

RN 33454-82-9 HCAPLUS
CN Methanesulfonic acid, trifluoro-, lithium salt (8CI, 9CI) (CA INDEX NAME)



● Li

RN 90076-65-6 HCAPLUS
CN Methanesulfonamide, 1,1,1-trifluoro-N-[(trifluoromethyl)sulfonyl]-, lithium salt (9CI) (CA INDEX NAME)

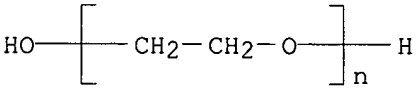


IT **9056-77-3DP**, Polyethylene glycol methacrylate, reaction product with dipentaerythritol derivative and acrylic acid and butylcarboxylic acid **25852-47-5DP**, Polyethylene glycol dimethacrylate, reaction product with dipentaerythritol derivative and acrylic acid and butylcarboxylic acid
RL: DEV (Device component use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(**polymer electrolyte** with effective leakage resistance for **lithium** battery)

RN 9056-77-3 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-hydro-ω-hydroxy-, 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

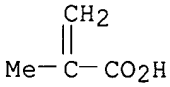
CM 1

CRN 25322-68-3
CMF (C2 H4 O)n H2 O
CCI PMS

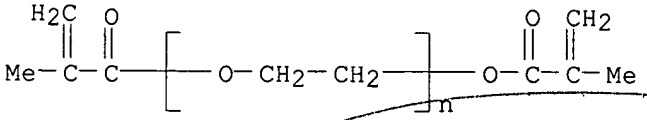


CM 2

CRN 79-41-4
CMF C4 H6 O2



RN 25852-47-5 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-(2-methyl-1-oxo-2-propenyl)-ω-[(2-methyl-1-oxo-2-propenyl)oxy]- (9CI) (CA INDEX NAME)

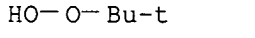


IT **75-91-2**, tert-Butyl hydroperoxide **78-63-7**,

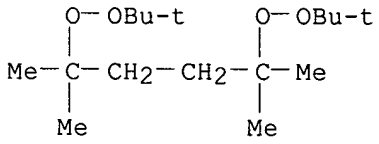
initiator

2,5-Dimethyl-2,5-di(tert-butylperoxy)hexane **78-67-1**, Azobisisobutyronitrile **80-15-9**, Cumene hydroperoxide **80-43-3**, Dicumyl peroxide **94-36-0**, Dibenzoyl peroxide, uses **105-64-6**, Diisopropyl peroxydicarbonate **105-74-8**, Dilauroyl peroxide **110-05-4**, Di-tert-butyl peroxide **1561-49-5**, Dicyclohexyl peroxy dicarbonate **1712-87-4**, m-Toluoyl peroxide **2167-23-9**, 2,2-Di-(tert-butylperoxy)butane **3025-88-5**, 2,5-Dihydroperoxy-2,5-dimethylhexane **14666-78-5** **15520-11-3**, Bis(4-tert-butylcyclohexyl)peroxydicarbonate **16066-38-9**, Di(n-propyl)peroxydicarbonate **16111-62-9**, Di(2-ethylhexyl)peroxydicarbonate **19910-65-7**, Di(sec-butyl)peroxydicarbonate **26748-47-0**, α-Cumyl peroxyneodecanoate **32752-09-3**, Isobutyl peroxide **52373-75-8** **55794-20-2**, Ethyl 3,3-di-(tert-butylperoxy)butyrate **92177-99-6**, 3,3,5-Trimethylhexanoyl peroxide **95732-35-7**
RL: CAT (Catalyst use); USES (Uses)
(**polymerization initiator; polymer electrolyte** with effective leakage resistance for **lithium** battery)

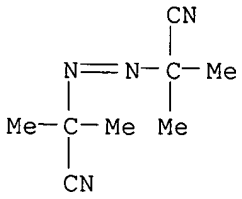
RN 75-91-2 HCAPLUS
CN Hydroperoxide, 1,1-dimethylethyl (9CI) (CA INDEX NAME)



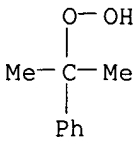
RN 78-63-7 HCAPLUS
CN Peroxide, (1,1,4,4-tetramethyl-1,4-butanediyl)bis[(1,1-dimethylethyl) (9CI) (CA INDEX NAME)



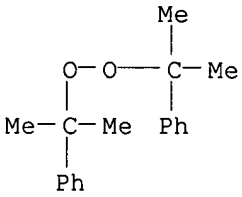
RN 78-67-1 HCAPLUS
CN Propanenitrile, 2,2'-azobis[2-methyl- (9CI) (CA INDEX NAME)



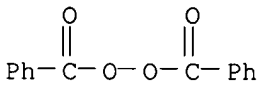
RN 80-15-9 HCAPLUS
CN Hydroperoxide, 1-methyl-1-phenylethyl (9CI) (CA INDEX NAME)



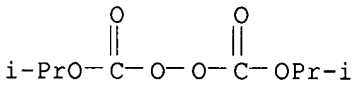
RN 80-43-3 HCAPLUS
CN Peroxide, bis(1-methyl-1-phenylethyl) (9CI) (CA INDEX NAME)



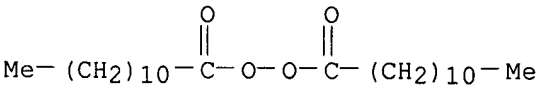
RN 94-36-0 HCAPLUS
CN Peroxide, dibenzoyl (9CI) (CA INDEX NAME)



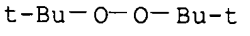
RN 105-64-6 HCAPLUS
CN Peroxydicarbonic acid, bis(1-methylethyl) ester (9CI) (CA INDEX NAME)



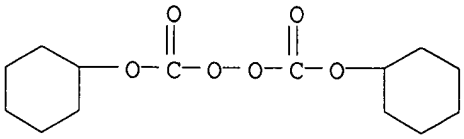
RN 105-74-8 HCAPLUS
CN Peroxide, bis(1-oxododecyl) (9CI) (CA INDEX NAME)



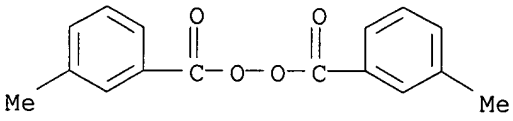
RN 110-05-4 HCAPLUS
CN Peroxide, bis(1,1-dimethylethyl) (9CI) (CA INDEX NAME)



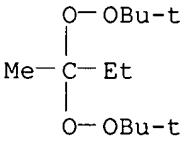
RN 1561-49-5 HCAPLUS
CN Peroxydicarbonic acid, dicyclohexyl ester (6CI, 8CI, 9CI) (CA INDEX NAME)



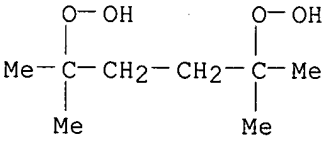
RN 1712-87-4 HCAPLUS
CN Peroxide, bis(3-methylbenzoyl) (9CI) (CA INDEX NAME)



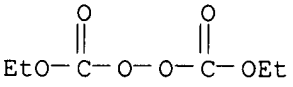
RN 2167-23-9 HCAPLUS
CN Peroxide, (1-methylpropylidene)bis[(1,1-dimethylethyl) (9CI) (CA INDEX NAME)



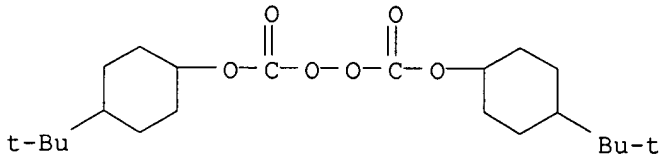
RN 3025-88-5 HCAPLUS
CN Hydroperoxide, (1,1,4,4-tetramethyl-1,4-butanediyl)bis- (9CI) (CA INDEX NAME)



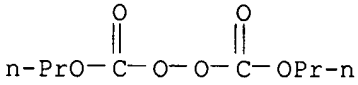
RN 14666-78-5 HCAPLUS
CN Peroxydicarbonic acid, diethyl ester (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



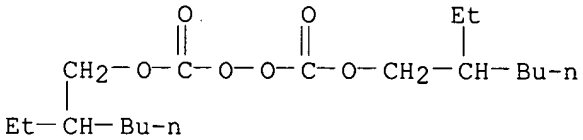
RN 15520-11-3 HCAPLUS
CN Peroxydicarbonic acid, bis[4-(1,1-dimethylethyl)cyclohexyl] ester (9CI) (CA INDEX NAME)



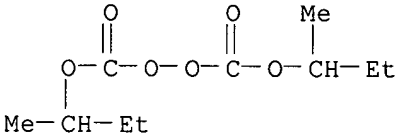
RN 16066-38-9 HCAPLUS
CN Peroxydicarbonic acid, dipropyl ester (8CI, 9CI) (CA INDEX NAME)



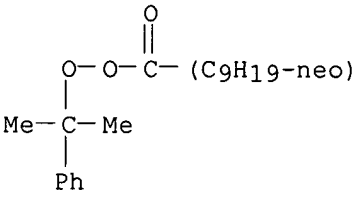
RN 16111-62-9 HCAPLUS
CN Peroxydicarbonic acid, bis(2-ethylhexyl) ester (7CI, 8CI, 9CI) (CA INDEX NAME)



RN 19910-65-7 HCAPLUS
CN Peroxydicarbonic acid, bis(1-methylpropyl) ester (9CI) (CA INDEX NAME)

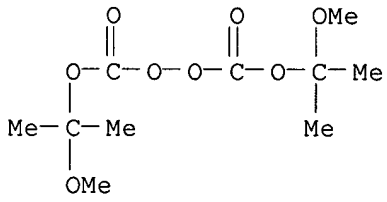


RN 26748-47-0 HCAPLUS
CN Neodecaneperoxoic acid, 1-methyl-1-phenylethyl ester (9CI) (CA INDEX NAME)

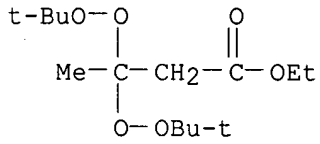


RN 32752-09-3 HCAPLUS
CN Peroxide, bis(2-methylpropyl) (9CI) (CA INDEX NAME)

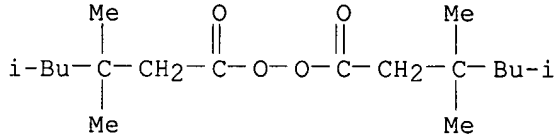
RN 52373-75-8 HCAPLUS
CN Peroxydicarbonic acid, bis(1-methoxy-1-methylethyl) ester (9CI) (CA INDEX NAME)



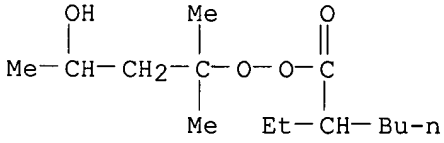
RN 55794-20-2 HCAPLUS
CN Butanoic acid, 3,3-bis[(1,1-dimethylethyl)dioxy]-, ethyl ester (9CI) (CA INDEX NAME)



RN 92177-99-6 HCAPLUS
CN Peroxide, bis(3,3,5-trimethyl-1-oxohexyl) (9CI) (CA INDEX NAME)



RN 95732-35-7 HCAPLUS
CN Hexaneperoxoic acid, 2-ethyl-, 3-hydroxy-1,1-dimethylbutyl ester (9CI) (CA INDEX NAME)



L198 ANSWER 16 OF 38 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2003:796195 HCAPLUS
DN 139:294681
TI Electrolyte for **lithium** battery to reduce overcharge and improve electrochemical characteristics
IN Kim, Jun-Ho; Lee, Ha-Young; Choy, Sang-Hoon; Kim, Ho-Sung; Noh, Hyeong-Gon

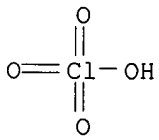
PA **Samsung SDI Co., Ltd., S. Korea**
SO U.S. Pat. Appl. Publ., 19 pp.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2003190529	A1	20031009	US 2003-393294	20030321 <--
	KR 2003079310	A	20031010	KR 2002-18264	20020403 <--
	CN 1449070	A	20031015	CN 2003-108529	20030328 <--
	JP 2003297426	A2	20031017	JP 2003-100349	20030403 <--
PRAI	KR 2002-18264	A	20020403 <--		

OS MARPAT 139:294681
AB An **electrolyte** for a **lithium** battery includes a nonaq. organic solvent, a **lithium** salt, and an additive comprising (a) a compound represented by the formula [(R1)nC6H(6-n+m)(X)m], and (b) a compound selected from the group consisting of a sulfone-based compound, a poly(ester)(meth)acrylate, a **polymer** of poly(ester)(meth)acrylate, and a mixture thereof: wherein R1 is a C1-10 alkyl, a C 1-10 alkoxy, or a C6-10 aryl, and preferably a Me, Et, or methoxy, X is a halogen, and m and n are integers ranging from 1 to 5, where m+n is less than or equal to 6.
IT **7447-41-8**, **Lithium** chloride (LiCl), uses
7791-03-9, **Lithium** perchlorate **10377-51-2**,
Lithium iodide (LiI) **12355-58-7**, **Lithium**
aluminate (Li5AlO4) **14283-07-9**, **Lithium**
tetrafluoroborate **18424-17-4**, **Lithium**
hexafluoroantimonate **21324-40-3**, **Lithium**
hexafluorophosphate **29935-35-1**, **Lithium**
hexafluoroarsenate **33454-82-9**, **Lithium** triflate
90076-65-6 131651-65-5, **Lithium**
perfluorobutanesulfonate
RL: DEV (Device component use); USES (Uses)
(electrolyte for **lithium** battery to reduce overcharge and improve electrochem. characteristics)
RN 7447-41-8 HCAPLUS
CN Lithium chloride (LiCl) (9CI) (CA INDEX NAME)

Cl—Li

RN 7791-03-9 HCAPLUS
CN Perchloric acid, lithium salt (8CI, 9CI) (CA INDEX NAME)

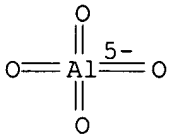


● Li

RN 10377-51-2 HCAPLUS
CN Lithium iodide (LiI) (9CI) (CA INDEX NAME)

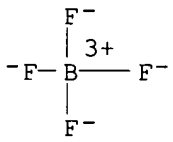
I—Li

RN 12355-58-7 HCAPLUS
CN Aluminate (AlO45-), pentalithium, (T-4)- (9CI) (CA INDEX NAME)



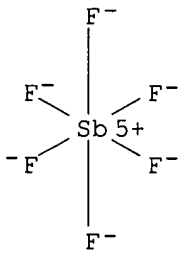
●5 Li^+

RN 14283-07-9 HCAPLUS
CN Borate(1-), tetrafluoro-, lithium (8CI, 9CI) (CA INDEX NAME)



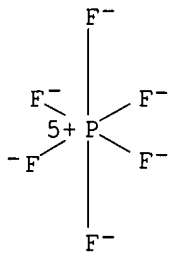
● Li^+

RN 18424-17-4 HCAPLUS
CN Antimonate(1-), hexafluoro-, lithium, (OC-6-11)- (9CI) (CA INDEX NAME)



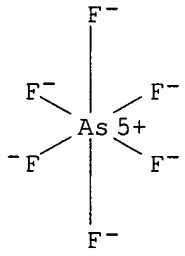
● Li^+

RN 21324-40-3 HCAPLUS
CN Phosphate(1-), hexafluoro-, lithium (8CI, 9CI) (CA INDEX NAME)



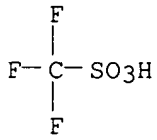
● Li^+

RN 29935-35-1 HCAPLUS
CN Arsenate(1-), hexafluoro-, lithium (8CI, 9CI) (CA INDEX NAME)



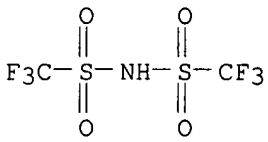
● Li^+

RN 33454-82-9 HCAPLUS
CN Methanesulfonic acid, trifluoro-, lithium salt (8CI, 9CI) (CA INDEX NAME)

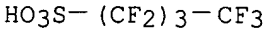


● Li

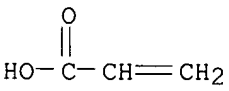
RN 90076-65-6 HCAPLUS
CN Methanesulfonamide, 1,1,1-trifluoro-N-[(trifluoromethyl)sulfonyl]-, lithium salt (9CI) (CA INDEX NAME)



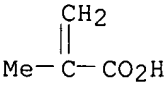
RN 131651-65-5 HCAPLUS
CN 1-Butanesulfonic acid, 1,1,2,2,3,3,4,4,4-nonafluoro-, lithium salt (9CI) (CA INDEX NAME)



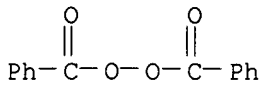
IT **79-10-7D**, Acrylic acid, ω-fatty acid esters C2-C21
79-41-4D, Methacrylic acid, ω-fatty acid esters C2-C21
94-36-0, Benzoyl peroxide, uses **105-64-6**, Diisopropyl peroxy dicarbonate **105-74-8**, Lauroyl peroxide **1561-49-5**, Dicyclohexyl peroxy dicarbonate **1712-87-4**, m-Toluoyl peroxide **3006-82-4**, tert-Butylperoxy-2-ethyl-hexanoate **14666-78-5** **15520-11-3**, Bis(4-tert-butylcyclohexyl)peroxy dicarbonate **32752-09-3**, Isobutyl peroxide **92177-99-6**, 3,3,5-Trimethylhexanoyl peroxide
RL: MOA (Modifier or additive use); USES (Uses)
(electrolyte for **lithium** battery to reduce overcharge and improve electrochem. characteristics)
RN 79-10-7 HCAPLUS
CN 2-Propenoic acid (9CI) (CA INDEX NAME)



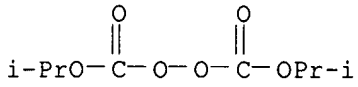
RN 79-41-4 HCAPLUS
CN 2-Propenoic acid, 2-methyl- (9CI) (CA INDEX NAME)



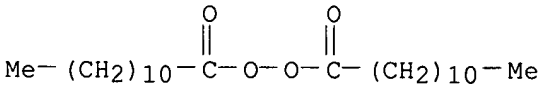
RN 94-36-0 HCAPLUS
CN Peroxide, dibenzoyl (9CI) (CA INDEX NAME)



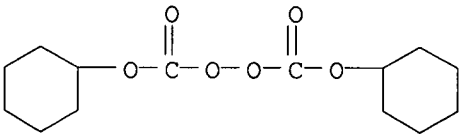
RN 105-64-6 HCAPLUS
CN Peroxydicarbonic acid, bis(1-methylethyl) ester (9CI) (CA INDEX NAME)



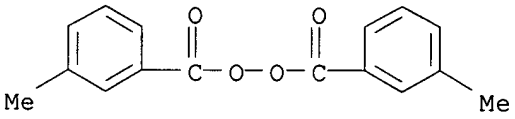
RN 105-74-8 HCAPLUS
CN Peroxide, bis(1-oxododecyl) (9CI) (CA INDEX NAME)



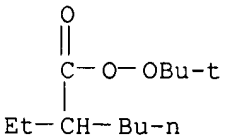
RN 1561-49-5 HCAPLUS
CN Peroxydicarbonic acid, dicyclohexyl ester (6CI, 8CI, 9CI) (CA INDEX NAME)



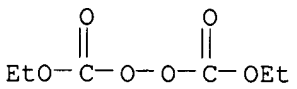
RN 1712-87-4 HCAPLUS
CN Peroxide, bis(3-methylbenzoyl) (9CI) (CA INDEX NAME)



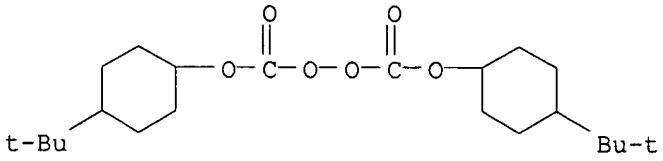
RN 3006-82-4 HCAPLUS
CN Hexaneperoxoic acid, 2-ethyl-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



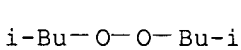
RN 14666-78-5 HCAPLUS
CN Peroxydicarbonic acid, diethyl ester (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



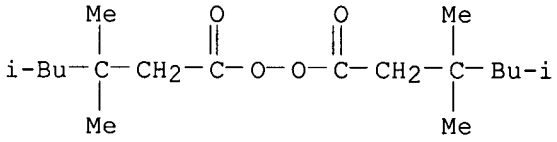
RN 15520-11-3 HCAPLUS
CN Peroxydicarbonic acid, bis[4-(1,1-dimethylethyl)cyclohexyl] ester (9CI) (CA INDEX NAME)



RN 32752-09-3 HCAPLUS
CN Peroxide, bis(2-methylpropyl) (9CI) (CA INDEX NAME)



RN 92177-99-6 HCAPLUS
CN Peroxide, bis(3,3,5-trimethyl-1-oxohexyl) (9CI) (CA INDEX NAME)



L198 ANSWER 17 OF 38 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2003:757159 HCAPLUS
DN 139:279098
TI Composition and assembly methods of solid **polymer electrolyte** for use in electrochemical cells
IN Oh, Bookeun; Amine, Khalil; Hyung, Yoo-Eup; Vissers, Donald R.
PA USA
SO U.S. Pat. Appl. Publ., 18 pp.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 11

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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US 2003180625	A1	20030925	US 2002-167940	20020612 <--
WO 2003083970	A1	20031009	WO 2003-US2127	20030122 <--

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WO 2003-US2127 W 20030122
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US 2003-446848P P 20030211
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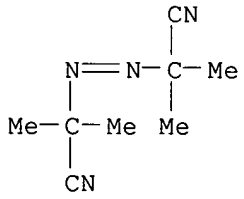
WO 2003-US8740 W 20030320
WO 2003-US8779 W 20030320
WO 2003-US8783 W 20030320

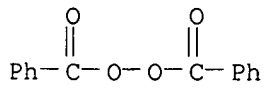
AB Disclosed is an improved solid **electrolyte** made of an interpenetrating network type solid **polymer** comprised of two compatible phases: a crosslinked **polymer** for mech. strength and chemical stability, and an ionic conducting phase. The highly branched siloxane polymer of the present invention has one or more poly(ethylene oxide) groups as a side chain. The PEO group is directly grafted to silicon atoms in the siloxane polymer. This kind of branched type siloxane **polymer** is stably anchored in the network structure and provides continuous conducting paths in all directions throughout the IPN solid **polymer electrolyte**. Also disclosed is a method of making an electrochem. cell incorporating the electrolyte. A cell made accordingly has an extremely high cycle life and electrochem. stability.

IT **78-67-1 94-36-0**, Benzoyl peroxide, processes
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PROC (Process)
(composition and assembly methods of solid **polymer electrolyte** for use in electrochem. cells)

RN 78-67-1 HCAPLUS
CN Propanenitrile, 2,2'-azobis[2-methyl- (9CI) (CA INDEX NAME)



RN 94-36-0 HCAPLUS
CN Peroxide, dibenzoyl (9CI) (CA INDEX NAME)

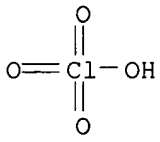


IT **7439-93-2, Lithium**, uses **7791-03-9, Lithium** perchlorate **14283-07-9, Lithium** tetrafluoroborate **21324-40-3, Lithium** hexafluorophosphate **29935-35-1, Lithium** hexafluoroarsenate **33454-82-9, Lithium** triflate **90076-65-6 113066-89-0**, Cobalt **lithium** nickeloxide Co0.2LiNi0.8O2 **132404-42-3 132843-44-8**
RL: DEV (Device component use); USES (Uses)
(composition and assembly methods of solid **polymer electrolyte** for use in electrochem. cells)

RN 7439-93-2 HCAPLUS
CN Lithium (7CI, 8CI, 9CI) (CA INDEX NAME)

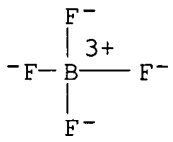
Li

RN 7791-03-9 HCAPLUS
CN Perchloric acid, lithium salt (8CI, 9CI) (CA INDEX NAME)



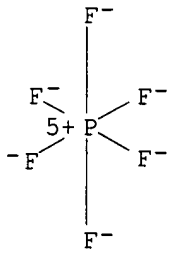
● Li

RN 14283-07-9 HCAPLUS
CN Borate(1-), tetrafluoro-, lithium (8CI, 9CI) (CA INDEX NAME)



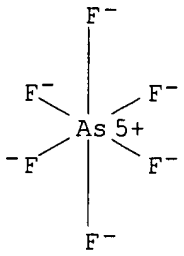
● Li^+

RN 21324-40-3 HCAPLUS
CN Phosphate(1-), hexafluoro-, lithium (8CI, 9CI) (CA INDEX NAME)



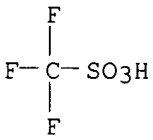
● Li^+

RN 29935-35-1 HCAPLUS
CN Arsenate(1-), hexafluoro-, lithium (8CI, 9CI) (CA INDEX NAME)



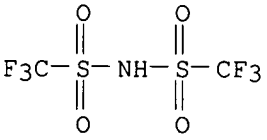
● Li^+

RN 33454-82-9 HCAPLUS
CN Methanesulfonic acid, trifluoro-, lithium salt (8CI, 9CI) (CA INDEX NAME)



● Li

RN 90076-65-6 HCAPLUS
CN Methanesulfonamide, 1,1,1-trifluoro-N-[(trifluoromethyl)sulfonyl]-, lithium salt (9CI) (CA INDEX NAME)



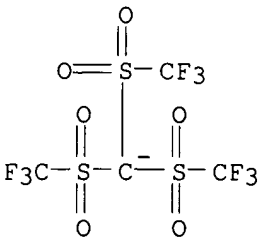
● Li

RN 113066-89-0 HCAPLUS
CN Cobalt lithium nickel oxide (Co0.2LiNi0.8O2) (9CI) (CA INDEX NAME)

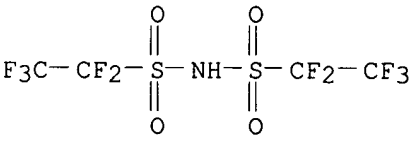
Component	Ratio	Component Registry Number
O	2	17778-80-2
Co	0.2	7440-48-4
Ni	0.8	7440-02-0
Li	1	7439-93-2

RN 132404-42-3 HCAPLUS

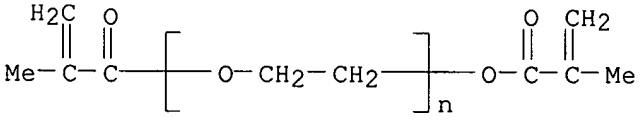
CN Methane, tris[(trifluoromethyl)sulfonyl]-, ion(1-), lithium (9CI) (CA INDEX NAME)



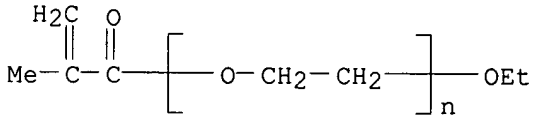
RN 132843-44-8 HCAPLUS
CN Ethanesulfonamide, 1,1,2,2,2-pentafluoro-N-[(pentafluoroethyl)sulfonyl]-, lithium salt (9CI) (CA INDEX NAME)



IT **25852-47-5DP**, Polyethylene glycol dimethacrylate, reaction product with polysiloxane and **lithium** imide salt **35625-93-5DP**, Polyethylene glycol methacrylate ethyl ether, reaction product with polysiloxane and **lithium** imide salt
RL: DEV (Device component use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(composition and assembly methods of solid **polymer electrolyte** for use in electrochem. cells)
RN 25852-47-5 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-(2-methyl-1-oxo-2-propenyl)-ω-[(2-methyl-1-oxo-2-propenyl)oxy]- (9CI) (CA INDEX NAME)



RN 35625-93-5 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-(2-methyl-1-oxo-2-propenyl)-ω-ethoxy- (9CI) (CA INDEX NAME)



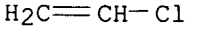
L198 ANSWER 18 OF 38 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2003:730571 HCAPLUS
DN 139:253866
TI Electric double-layered capacitor using UV-curing gel type **polymer electrolyte**
IN Cho, Byung-Won; Rhee, Hee-Woo; Cho, Won-Il; Kim, Hyun-Joong; Yang, Chun-Mo; Kim, Yong-Tae
PA Korea Institute of Science and Technology, S. Korea
SO U.S., 10 pp.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6621685	B1	20030916	US 2003-339398	20030110 <--
	KR 2003079325	A	20031010	KR 2002-18286	20020403 <--
	JP 2003303739	A2	20031024	JP 2003-34697	20030213 <--
PRAI	KR 2002-18286	A	20020403 <--		

AB The present invention relates to an elec. double-layered capacitor using an UV-curing gel type **polymer electrolyte**. Disclosed is an elec. double-layered capacitor fabricated by inserting a UV-curing gel type **polymer electrolyte** having excellent characteristics of ion conductivity, adhesion to electrode, compatibility with an organic solvent **electrolyte**, mech. stability, permeability, and applicability to process, between electrodes. Accordingly, the present invention increases its storage capacitance, reduces self-discharge of electricity, and decreases inner cell resistance.
IT **9002-86-2**, Polyvinyl chloride **9011-14-7**, Polymethylmethacrylate **25086-15-1**, Methylmethacrylate methacrylic acid **copolymer 25721-76-0**, Polyethyleneglycoldimethacrylate **26570-48-9**, Polyethyleneglycoldiacrylate
RL: NUU (Other use, unclassified); USES (Uses)
(UV curing agent; elec. double-layered capacitor using UV-curing gel type **polymer electrolyte**)
RN 9002-86-2 HCAPLUS
CN Ethene, chloro-, homopolymer (9CI) (CA INDEX NAME)

CM 1

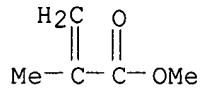
CRN 75-01-4
CMF C2 H3 Cl



RN 9011-14-7 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, methyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

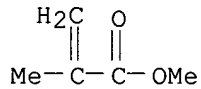
CRN 80-62-6
CMF C5 H8 O2



RN 25086-15-1 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, polymer with methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

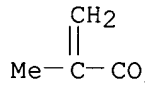
CM 1

CRN 80-62-6
CMF C5 H8 O2



CM 2

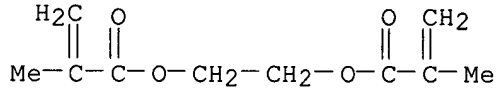
CRN 79-41-4
CMF C4 H6 O2



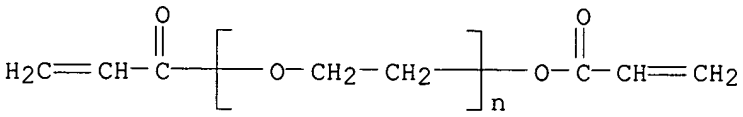
RN 25721-76-0 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 1,2-ethanediyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

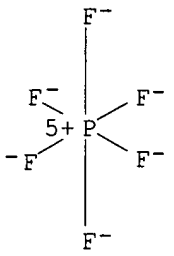
CRN 97-90-5
CMF C10 H14 O4



RN 26570-48-9 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-(1-oxo-2-propenyl)-ω-[(1-oxo-2-propenyl)oxy]- (9CI) (CA INDEX NAME)



IT **21324-40-3, Lithium** hexafluorophosphate
RL: NUU (Other use, unclassified); USES (Uses)
(liquid **electrolyte** containing; elec. double-layered capacitor using UV-curing gel type **polymer electrolyte**)
RN 21324-40-3 HCAPLUS
CN Phosphate(1-), hexafluoro-, lithium (8CI, 9CI) (CA INDEX NAME)



RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Arbizzani, C	1995	40	2223	Electrochimica Acta	
Daido	2001			US 6291106 B1	HCAPLUS
Ishikawa, M	1995	40	2217	Electrochimica Acta	
Kanbara	2000			US 6043975 A	HCAPLUS
Kang	2003			US 20030044688 A1	
Kim	2003			US 20030068562 A1	HCAPLUS
Munshi	2002			US 6426863 B1	HCAPLUS
Sakai	2002			US 6430032 B2	HCAPLUS

L198 ANSWER 19 OF 38 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2003:656287 HCAPLUS
DN 139:182872
TI **Polymer electrolyte** for **lithium** secondary battery
IN Jung, Cheol-Soo; Kim, Ki-Ho; Bong, Cul-Hwen; Yang, Doo-Kyung; **Lee, Kyoung-Hee**; Lee, Yong-Beom; Lim, Hyun-Leong; Yamaguchi, Takitaro; Shimizu, Ryuichi
PA **Samsung SDI Co., Ltd., S. Korea**
SO U.S. Pat. Appl. Publ., 14 pp.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 1

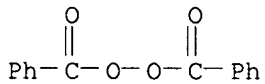
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

PI	US 2003157411	A1	20030821	US 2002-287486	20021105 <--
	KR 2003068714	A	20030825	KR 2002-8303	20020216 <--
	JP 2003249264	A2	20030905	JP 2003-31544	20030207 <--
	CN 1438727	A	20030827	CN 2003-103890	20030214 <--
PRAI	KR 2002-8303	A	20020216 <--		

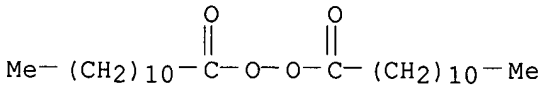
AB A solid **polymer electrolyte**, a **lithium** battery employing the same, and methods of forming the **electrolyte** and the **lithium** battery are disclosed. The **polymer electrolyte** includes polyester methacrylate having a polyester polyol moiety having three or more hydroxide (-OH) groups, at least one hydroxde group being substituted by a methacrylic ester group and at least one hydroxide group being substituted by a radical non-reactive group, or its **polymer**, a peroxide having 6-40 carbon atoms, and an **electrolytic** solution including a **lithium** salt and an organic solvent.

IT **94-36-0**, Benzoyl peroxide, processes **105-74-8**, Lauroyl peroxide
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PROC (Process)
(**polymer electrolyte** for **lithium** secondary battery)

RN 94-36-0 HCAPLUS
CN Peroxide, dibenzoyl (9CI) (CA INDEX NAME)



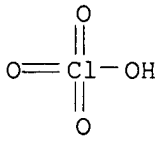
RN 105-74-8 HCAPLUS
CN Peroxide, bis(1-oxododecyl) (9CI) (CA INDEX NAME)



IT **7447-41-8**, **Lithium** chloride (LiCl), uses **7791-03-9**, **Lithium** perchlorate **10377-51-2**, **Lithium** iodide (LiI) **14024-11-4**, Aluminum **lithium** chloride allicl4 **14283-07-9**, **Lithium** tetrafluoroborate **18424-17-4**, **Lithium** hexafluoroantimonate **21324-40-3**, **Lithium** hexafluorophosphate **29935-35-1**, **Lithium** hexafluoroarsenate **33454-82-9**, **Lithium** triflate **90076-65-6** **131651-65-5**
RL: DEV (Device component use); USES (Uses)
(**polymer electrolyte** for **lithium** secondary battery)

RN 7447-41-8 HCAPLUS
CN Lithium chloride (LiCl) (9CI) (CA INDEX NAME)

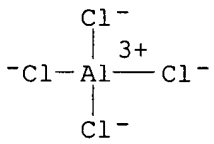
RN 7791-03-9 HCAPLUS
CN Perchloric acid, lithium salt (8CI, 9CI) (CA INDEX NAME)



● Li

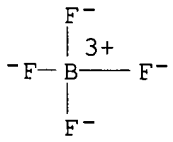
RN 10377-51-2 HCAPLUS
CN Lithium iodide (LiI) (9CI) (CA INDEX NAME)

RN 14024-11-4 HCAPLUS
CN Aluminate(1-), tetrachloro-, lithium, (T-4)- (9CI) (CA INDEX NAME)



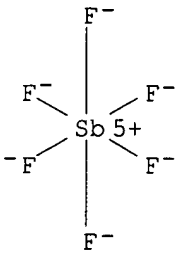
● Li^+

RN 14283-07-9 HCAPLUS
CN Borate(1-), tetrafluoro-, lithium (8CI, 9CI) (CA INDEX NAME)



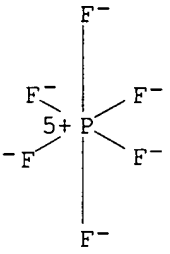
● Li^+

RN 18424-17-4 HCAPLUS
CN Antimonate(1-), hexafluoro-, lithium, (OC-6-11)- (9CI) (CA INDEX NAME)



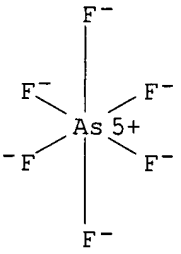
● Li^+

RN 21324-40-3 HCAPLUS
CN Phosphate(1-), hexafluoro-, lithium (8CI, 9CI) (CA INDEX NAME)



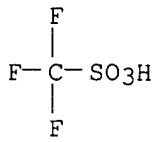
● Li^+

RN 29935-35-1 HCAPLUS
CN Arsenate(1-), hexafluoro-, lithium (8CI, 9CI) (CA INDEX NAME)



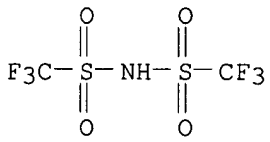
● Li^+

RN 33454-82-9 HCAPLUS
CN Methanesulfonic acid, trifluoro-, lithium salt (8CI, 9CI) (CA INDEX NAME)



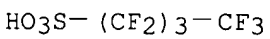
● Li

RN 90076-65-6 HCAPLUS
CN Methanesulfonamide, 1,1,1-trifluoro-N-[(trifluoromethyl)sulfonyl]-, lithium salt (9CI) (CA INDEX NAME)



● Li

RN 131651-65-5 HCAPLUS
CN 1-Butanesulfonic acid, 1,1,2,2,3,3,4,4,4-nonafluoro-, lithium salt (9CI) (CA INDEX NAME)



● Li

L198 ANSWER 20 OF 38 HCAPLUS COPYRIGHT 2006 ACS on STN
AN **2003:529505** HCAPLUS
DN 139:103712
TI Acrylic **polymer**-based **polymer electrolyte** and **lithium** secondary battery using the same
IN Sonobe, Hiroyuki
PA Hitachi Chemical Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2003197262	A2	20030711	JP 2001-393607	20011226 <--
PRAI JP 2001-393607		20011226 <--		

AB The **polymer electrolyte** is obtained gelling a **polymerizable** composition The composition comprises an acrylic **polymer** with the weight average mol. weight 1,000-100,000 consisting of (a)

a (meth)acrylate structure [H2C-CR(COOR1)] 35-89% and a **polymerizable** structure 11-65% [H2C-CR(COOXOOCCR=CH2)] (R = H, Me; R1 = C1-8 alkyl; and X = CH2CH2, etc.), a thermal- or photo-**polymn**. **initiator**, and a nonaq. **electrolyte** containing an alkali metal salt.

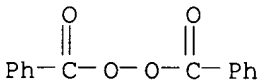
IT **12190-79-3**, Cobalt **lithium** oxide (CoLiO2)
RL: TEM (Technical or engineered material use); USES (Uses)
(acrylic **polymer**-based **polymer electrolyte** for batteries)

RN 12190-79-3 HCAPLUS
CN Cobalt lithium oxide (CoLiO2) (9CI) (CA INDEX NAME)

Component	Ratio	Component Registry Number
O	2	17778-80-2
Co	1	7440-48-4
Li	1	7439-93-2

IT **94-36-0**, Benzoyl peroxide, uses
RL: CAT (Catalyst use); USES (Uses)
(**polymerization initiator**; acrylic **polymer**-based **polymer electrolyte** for batteries)

RN 94-36-0 HCAPLUS
CN Peroxide, dibenzoyl (9CI) (CA INDEX NAME)



L198 ANSWER 21 OF 38 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2003:5305 HCAPLUS
DN 138:42077
TI Preparation of **polymer electrolyte** with good ionic conductivity at room temperature and good mechanical properties for **lithium** battery
IN **Lee, Kyoung-hee**; Kim, Ki-ho
PA **Samsung SDI Co., Ltd., S. Korea**
SO U.S. Pat. Appl. Publ., 11 pp.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 1

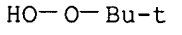
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2003003368	A1	20030102	US 2002-136431	20020502 <--
	US 6933080	B2	20050823		
	KR 2002084614	A	20021109	KR 2001-24041	20010503 <--
	JP 2003017129	A2	20030117	JP 2002-130108	20020501 <--
	CN 1388172	A	20030101	CN 2002-121519	20020503 <--
PRAI	KR 2001-24041	A	20010503 <--		

AB A **polymer electrolyte** is formed by curing a composition prepared by mixing a **polymer** of compds. of polyethylene glycol di(meth)acrylates and/or multifunctional ethylene oxides; one selected from a vinylacetate monomer, a (meth)acryalte monomer, and a mixture of a vinyl acetate monomer and a (meth)acrylate monomer; and an **electrolytic** solution containing a **lithium** salt and an organic

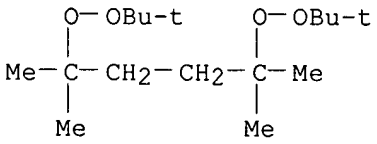
solvent.

IT **75-91-2**, tert-Butyl hydroperoxide **78-63-7**, 2,5-Dimethyl-2,5-di(tert-butylperoxy)hexane **78-67-1**, Azobisisobutyronitrile **80-15-9**, Cumene hydroperoxide **80-43-3**, Dicumyl peroxide **94-36-0**, Dibenzoyl peroxide, processes **105-74-8**, Dilauroyl peroxide **110-05-4**, Di-tert-butyl peroxide **2167-23-9**, 2,2-Di-(tert-butylperoxy)butane **3025-88-5**, 2,5-Dihydroperoxy-2,5-dimethylhexane **16066-38-9**, Di(n-propyl)peroxydicarbonate **16111-62-9**, Di(2-ethylhexyl)peroxydicarbonate **19910-65-7**, Di(sec-butyl)peroxydicarbonate **26748-47-0**, α-Cumyl peroxy neodecanoate **55794-20-2** **95732-35-7**
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PROC (Process)
(curing **initiator**; preparation of **polymer electrolyte** with good ionic conductivity at room temperature and good mech. properties for **lithium** battery)

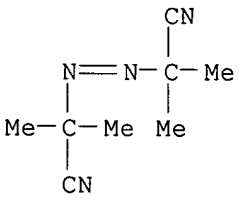
RN 75-91-2 HCAPLUS
CN Hydroperoxide, 1,1-dimethylethyl (9CI) (CA INDEX NAME)



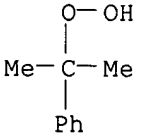
RN 78-63-7 HCAPLUS
CN Peroxide, (1,1,4,4-tetramethyl-1,4-butanediyl)bis[(1,1-dimethylethyl) (9CI) (CA INDEX NAME)



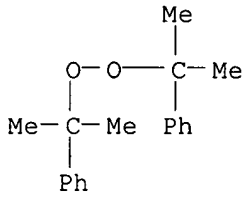
RN 78-67-1 HCAPLUS
CN Propanenitrile, 2,2'-azobis[2-methyl- (9CI) (CA INDEX NAME)



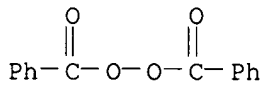
RN 80-15-9 HCAPLUS
CN Hydroperoxide, 1-methyl-1-phenylethyl (9CI) (CA INDEX NAME)



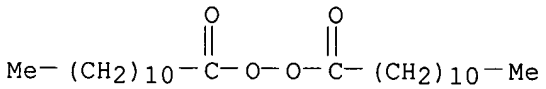
RN 80-43-3 HCAPLUS
CN Peroxide, bis(1-methyl-1-phenylethyl) (9CI) (CA INDEX NAME)



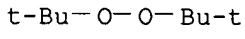
RN 94-36-0 HCAPLUS
CN Peroxide, dibenzoyl (9CI) (CA INDEX NAME)



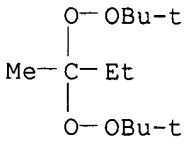
RN 105-74-8 HCAPLUS
CN Peroxide, bis(1-oxododecyl) (9CI) (CA INDEX NAME)



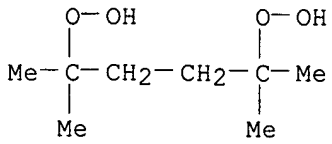
RN 110-05-4 HCAPLUS
CN Peroxide, bis(1,1-dimethylethyl) (9CI) (CA INDEX NAME)



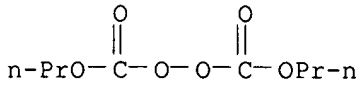
RN 2167-23-9 HCAPLUS
CN Peroxide, (1-methylpropylidene)bis[(1,1-dimethylethyl) (9CI) (CA INDEX NAME)



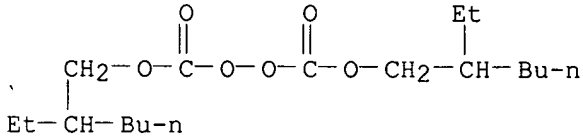
RN 3025-88-5 HCAPLUS
CN Hydroperoxide, (1,1,4,4-tetramethyl-1,4-butanediyl)bis- (9CI) (CA INDEX NAME)



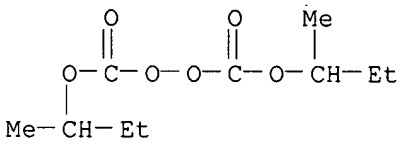
RN 16066-38-9 HCAPLUS
CN Peroxydicarbonic acid, dipropyl ester (8CI, 9CI) (CA INDEX NAME)



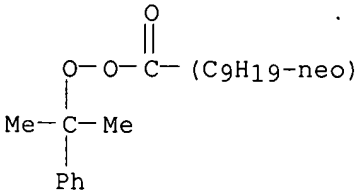
RN 16111-62-9 HCAPLUS
CN Peroxydicarbonic acid, bis(2-ethylhexyl) ester (7CI, 8CI, 9CI) (CA INDEX NAME)



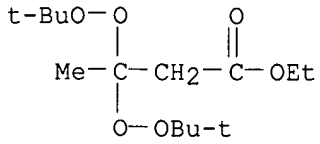
RN 19910-65-7 HCAPLUS
CN Peroxydicarbonic acid, bis(1-methylpropyl) ester (9CI) (CA INDEX NAME)



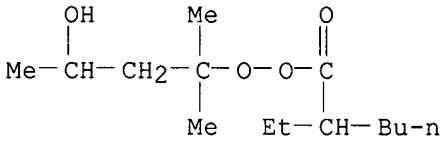
RN 26748-47-0 HCAPLUS
CN Neodecaneperoxoic acid, 1-methyl-1-phenylethyl ester (9CI) (CA INDEX NAME)



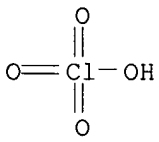
RN 55794-20-2 HCAPLUS
CN Butanoic acid, 3,3-bis[(1,1-dimethylethyl)dioxy]-, ethyl ester (9CI) (CA INDEX NAME)



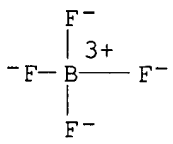
RN 95732-35-7 HCAPLUS
CN Hexaneperoxoic acid, 2-ethyl-, 3-hydroxy-1,1-dimethylbutyl ester (9CI) (CA INDEX NAME)



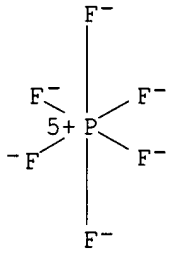
IT **7791-03-9, Lithium** perchlorate **14283-07-9, Lithium** tetrafluoroborate **21324-40-3, Lithium** hexafluorophosphate **33454-82-9, Lithium** triflate
RL: DEV (Device component use); USES (Uses)
(preparation of **polymer electrolyte** with good ionic conductivity at room temperature and good mech. properties for **lithium** battery)
RN 7791-03-9 HCAPLUS
CN Perchloric acid, lithium salt (8CI, 9CI) (CA INDEX NAME)



RN 14283-07-9 HCAPLUS
CN Borate(1-), tetrafluoro-, lithium (8CI, 9CI) (CA INDEX NAME)

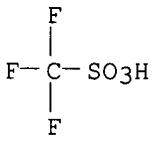


RN 21324-40-3 HCAPLUS
CN Phosphate(1-), hexafluoro-, lithium (8CI, 9CI) (CA INDEX NAME)



● Li^+

RN 33454-82-9 HCAPLUS
CN Methanesulfonic acid, trifluoro-, lithium salt (8CI, 9CI) (CA INDEX NAME)

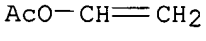


● Li

IT **27015-60-7P**, Ethylene glycol dimethacrylate-vinyl acetate **copolymer** **95877-34-2P**, Ethylene glycol dimethacrylate-methyl methacrylate-vinyl acetate **copolymer**
RL: DEV (Device component use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(preparation of **polymer electrolyte** with good ionic conductivity at room temperature and good mech. properties for **lithium** battery)
RN 27015-60-7 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 1,2-ethanediyl ester, polymer with ethenyl acetate (9CI) (CA INDEX NAME)

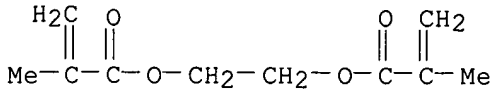
CM 1

CRN 108-05-4
CMF C4 H6 O2



CM 2

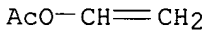
CRN 97-90-5
CMF C10 H14 O4



RN 95877-34-2 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 1,2-ethanediyl ester, polymer with ethenyl acetate and methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

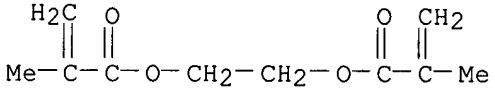
CM 1

CRN 108-05-4
CMF C4 H6 O2



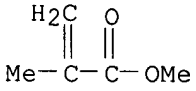
CM 2

CRN 97-90-5
CMF C10 H14 O4



CM 3

CRN 80-62-6
CMF C5 H8 O2



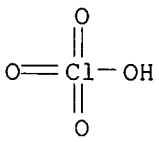
RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Anon	1988			JP 63-94501	HCAPLUS
Anon	1991			JP 03-195713	HCAPLUS
Anon	1995			DE 4431773 A1	HCAPLUS
Anon	1998			JP 10-130346	HCAPLUS
Anon	1998			JP 10130346 A	HCAPLUS
Anon	2000			EP 1037294 A2	HCAPLUS
Anon	2002			KR 200277732	
Lee	1989			US 4830939 A	HCAPLUS
Schwab	1988			US 4792504 A	HCAPLUS
Subramaniam	1998			US 5817016 A	
Takahashi	1990			US 4908283 A	HCAPLUS
Yasukawa	1989			US 4798773 A	HCAPLUS

L198 ANSWER 22 OF 38 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2002:638177 HCAPLUS
DN 137:188207
TI **Polymer electrolytes** for **lithium** secondary battery with improved safety
IN Lee, Yong-Boom; Jung, Chool-Soo; **Lee, Kyoung-Hee**
PA **Samsung Sdi Co., Ltd., S. Korea**
SO U.S. Pat. Appl. Publ., 14 pp.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2002114997	A1	20020822	US 2002-36465	20020107 <--
	US 6833219	B2	20041221		
	KR 2002057569	A	20020711	KR 2001-667	20010105 <--
	CN 1384125	A	20021211	CN 2002-106465	20020105 <--
	JP 2002289255	A2	20021004	JP 2002-877	20020107 <--
PRAI	KR 2001-667	A	20010105 <--		

AB A **polymer electrolyte** for use in a **lithium** secondary battery prepared by **polymerizing** a composition including 0.1 to 90% by weight of a first compound represented by formula 1, a second compound represented by formula 2 or a mixture thereof, 0.1 to 90% by weight of a third compound represented by formula 3, and 9.8 to 99.8% by weight of a nonaq. organic solvent containing 0.5 to 2.0M of a **lithium** salt. Formula 1 is CH(R1)=C(R2)-C(=O)O-R3-N(R4)(R5), formula 2 is CH(R1)=C(R2)-C(=O)O-R3-CN, and formula 3 is Z-{-Y-X-C(R2)=CH(R1)}n.
IT **7791-03-9, Lithium** perchlorate **12190-79-3,** Cobalt **lithium** oxide colio2 **14283-07-9, Lithium** tetrafluoroborate **21324-40-3, Lithium** hexafluorophosphate **29935-35-1, Lithium** hexafluoroarsenate **33454-82-9, Lithium** triflate **90076-65-6**
RL: DEV (Device component use); USES (Uses)
(**polymer electrolytes** for **lithium** secondary battery with improved safety)
RN 7791-03-9 HCAPLUS
CN Perchloric acid, lithium salt (8CI, 9CI) (CA INDEX NAME)



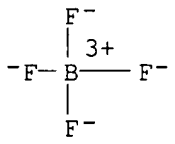
● Li

RN 12190-79-3 HCAPLUS
CN Cobalt lithium oxide (CoLiO2) (9CI) (CA INDEX NAME)

Component	Ratio	Component Registry Number
O	2	17778-80-2

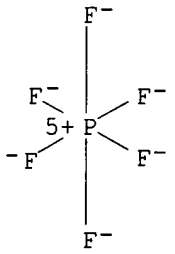
Co	1	7440-48-4
Li	1	7439-93-2

RN 14283-07-9 HCAPLUS
CN Borate(1-), tetrafluoro-, lithium (8CI, 9CI) (CA INDEX NAME)



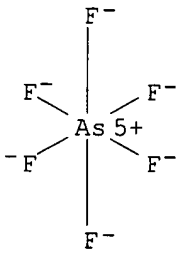
● Li^+

RN 21324-40-3 HCAPLUS
CN Phosphate(1-), hexafluoro-, lithium (8CI, 9CI) (CA INDEX NAME)



● Li^+

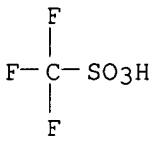
RN 29935-35-1 HCAPLUS
CN Arsenate(1-), hexafluoro-, lithium (8CI, 9CI) (CA INDEX NAME)



● Li^+

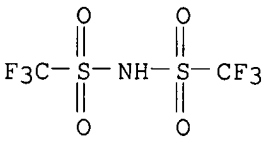
RN 33454-82-9 HCAPLUS

CN Methanesulfonic acid, trifluoro-, lithium salt (8CI, 9CI) (CA INDEX NAME)



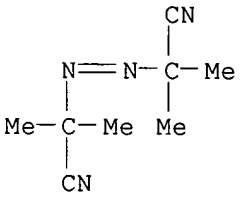
Li

RN 90076-65-6 HCAPLUS
CN Methanesulfonamide, 1,1,1-trifluoro-N-[(trifluoromethyl)sulfonyl]-, lithium salt (9CI) (CA INDEX NAME)

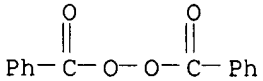


Li

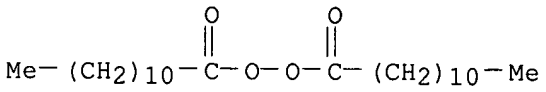
IT **78-67-1**, Azobisisobutyronitrile **94-36-0**, Benzoyl peroxide, uses **105-74-8**, Lauroyl peroxide
RL: MOA (Modifier or additive use); USES (Uses)
(**polymer electrolytes** for **lithium** secondary battery with improved safety)
RN 78-67-1 HCAPLUS
CN Propanenitrile, 2,2'-azobis[2-methyl- (9CI) (CA INDEX NAME)



RN 94-36-0 HCAPLUS
CN Peroxide, dibenzoyl (9CI) (CA INDEX NAME)



RN 105-74-8 HCAPLUS
CN Peroxide, bis(1-oxododecyl) (9CI) (CA INDEX NAME)



RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Hasegawa	1999			US 5972539 A	HCAPLUS
Koksbang	1994			US 5340368 A	HCAPLUS
Murata	1995			US 5437942 A	HCAPLUS
Sasaki	1994			US 5279910 A	HCAPLUS

L198 ANSWER 23 OF 38 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2002:595200 HCAPLUS
DN 137:143066
TI A multi-layered, UV-cured **polymer electrolyte** for **lithium** secondary battery
IN Yun, Kyung-Suk; Cho, Byung-Won; Cho, Won-Il; Kim, Hyung-Sun; Kim, Un-Sek; Rhee, Hee-Woo; Kim, Yong-Tae
PA Korea Institute of Science and Technology, S. Korea
SO PCT Int. Appl., 40 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

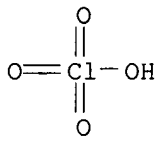
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002061874	A1	20020808	WO 2001-KR133	20010131 <--
	W: JP, KR, US				
	US 2003180623	A1	20030925	US 2003-275383	20030522 <--
PRAI	WO 2001-KR133	W	20010131 <--		

AB The present invention relates to a multi-layered, UV-cured **polymer electrolyte** and **lithium** secondary battery comprising the same, wherein the **polymer electrolyte** comprises: (A) a separator layer formed of **polymer electrolyte**, PP, PE, PVdF or non-woven fabric, wherein the separator layer having two surfaces; (B) at least one gelled **polymer electrolyte** layer located on at least one surface of the separator layer comprising: (a) **polymer** obtained by curing ethyleneglycoldi(meth)acrylate oligomer of the formula by UV irradiation: CH2=CR1COO(CH2CH2O)nCOCR2=CH2 wherein, R1 and R2 are independently hydrogen or Me group, and n is a integer of 3-20; and (b) at least one **polymer** selected from the group consisting of PVdF-based **polymer**, PAN-based **polymer**, PMMA-based **polymer** and PVC-based **polymer**; and (C) organic **electrolyte** solution in which **lithium** salt is dissolved in a solvent.
IT **7439-93-2**, **Lithium**, uses **7791-03-9**, **Lithium** perchlorate **9002-86-2**, Polyvinyl chloride **9010-88-2**, Ethyl acrylate-methyl methacrylate **copolymer** **9011-14-7**, Pmma **9056-77-3**, Poly(ethylene glycol methacrylate) **12031-65-1**, **Lithium** nickel oxide linio2 **12190-79-3**, Cobalt **lithium** oxide colio2 **14283-07-9**, **Lithium** tetrafluoroborate **21324-40-3**, **Lithium** hexafluorophosphate **25086-15-1**, Methacrylic acid-methyl methacrylate **copolymer** **29935-35-1**, **Lithium** hexafluoroarsenate **33454-82-9**, **Lithium** triflate **90076-65-6** **162004-08-2**, Cobalt

lithium nickel oxide colinio2
RL: DEV (Device component use); USES (Uses)
(multilayered, UV-cured **polymer electrolyte** for **lithium** secondary battery)
RN 7439-93-2 HCAPLUS
CN Lithium (7CI, 8CI, 9CI) (CA INDEX NAME)

Li

RN 7791-03-9 HCAPLUS
CN Perchloric acid, lithium salt (8CI, 9CI) (CA INDEX NAME)

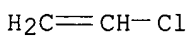


● Li

RN 9002-86-2 HCAPLUS
CN Ethene, chloro-, homopolymer (9CI) (CA INDEX NAME)

CM 1

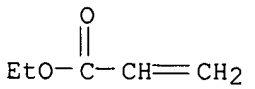
CRN 75-01-4
CMF C2 H3 Cl



RN 9010-88-2 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with ethyl 2-propenoate (9CI) (CA INDEX NAME)

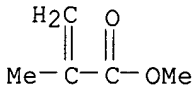
CM 1

CRN 140-88-5
CMF C5 H8 O2



CM 2

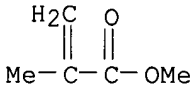
CRN 80-62-6
CMF C5 H8 O2



RN 9011-14-7 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, methyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

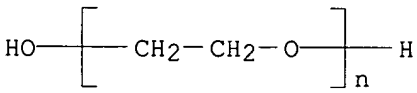
CRN 80-62-6
CMF C5 H8 O2



RN 9056-77-3 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-hydro-ω-hydroxy-, 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

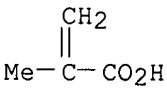
CM 1

CRN 25322-68-3
CMF (C2 H4 O)n H2 O
CCI PMS



CM 2

CRN 79-41-4
CMF C4 H6 O2



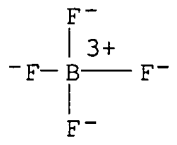
RN 12031-65-1 HCAPLUS
CN Lithium nickel oxide (LiNiO2) (6CI, 8CI, 9CI) (CA INDEX NAME)

Component	Ratio	Component Registry Number
O	2	17778-80-2
Ni	1	7440-02-0
Li	1	7439-93-2

RN 12190-79-3 HCAPLUS
CN Cobalt lithium oxide (CoLiO2) (9CI) (CA INDEX NAME)

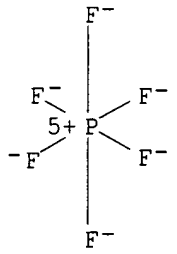
Component	Ratio	Component Registry Number
O	2	17778-80-2
Co	1	7440-48-4
Li	1	7439-93-2

RN 14283-07-9 HCAPLUS
CN Borate(1-), tetrafluoro-, lithium (8CI, 9CI) (CA INDEX NAME)



● Li^+

RN 21324-40-3 HCAPLUS
CN Phosphate(1-), hexafluoro-, lithium (8CI, 9CI) (CA INDEX NAME)

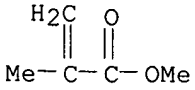


● Li^+

RN 25086-15-1 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, polymer with methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

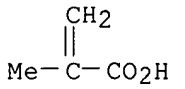
CM 1

CRN 80-62-6
CMF C5 H8 O2

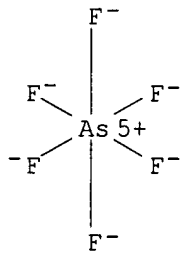


CM 2

CRN 79-41-4
CMF C4 H6 O2

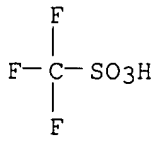


RN 29935-35-1 HCAPLUS
CN Arsenate(1-), hexafluoro-, lithium (8CI, 9CI) (CA INDEX NAME)



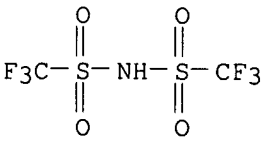
● Li^+

RN 33454-82-9 HCAPLUS
CN Methanesulfonic acid, trifluoro-, lithium salt (8CI, 9CI) (CA INDEX NAME)



● Li

RN 90076-65-6 HCAPLUS
CN Methanesulfonamide, 1,1,1-trifluoro-N-[(trifluoromethyl)sulfonyl]-, lithium salt (9CI) (CA INDEX NAME)

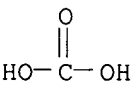


● Li

RN 162004-08-2 HCAPLUS
CN Cobalt lithium nickel oxide ((Co,Li,Ni)O2) (9CI) (CA INDEX NAME)

Component	Ratio	Component Registry Number
O	2	17778-80-2
Co	0 - 1	7440-48-4
Ni	0 - 1	7440-02-0
Li	0 - 1	7439-93-2

IT **554-13-2 1310-65-2, Lithium** hydroxide (
Li(OH)) **7789-24-4, Lithium** fluoride, uses
12003-67-7, Aluminum **lithium** oxide allio2
12057-24-8, Lithia, uses **26134-62-3, Lithium**
nitride (Li3N)
RL: MOA (Modifier or additive use); USES (Uses)
(porous filler; multilayered, UV-cured **polymer**
electrolyte for **lithium** secondary battery)
RN 554-13-2 HCAPLUS
CN Carbonic acid, dilithium salt (8CI, 9CI) (CA INDEX NAME)



●2 Li

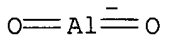
RN 1310-65-2 HCAPLUS
CN Lithium hydroxide (Li(OH)) (9CI) (CA INDEX NAME)

Li—OH

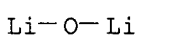
RN 7789-24-4 HCAPLUS
CN Lithium fluoride (LiF) (9CI) (CA INDEX NAME)

F—Li

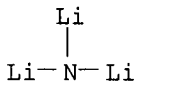
RN 12003-67-7 HCAPLUS
CN Aluminate (AlO21-), lithium (9CI) (CA INDEX NAME)



RN 12057-24-8 HCAPLUS
CN Lithium oxide (Li2O) (8CI, 9CI) (CA INDEX NAME)



RN 26134-62-3 HCAPLUS
CN Lithium nitride (Li3N) (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Kist	2000			KR1020000003091 A	
Kist	2000			KR1020000003092 A	
Matsushita Electric Ind	1990			JP 02-144860 A	HCAPLUS
Matsushita Electric Ind	1999			JP 11-054154 A	HCAPLUS
Polystor Corporation	1998			US 05783333 A	HCAPLUS
Sanyo Electric Co Ltd	1994			JP 06-333597 A	HCAPLUS
Sharp Kabushiki Kaisha	2000			US 06040092 A	HCAPLUS

L198 ANSWER 24 OF 38 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2002:595199 HCAPLUS
DN 137:143065
TI Fabrication of **lithium** secondary battery with a UV-cured multi-component **polymer** blend **electrolyte**
IN Cho, Byung-Won; Cho, Won-Il; Kim, Hyung-Sun; Kim, Un-Sek; Rhee, Hee-Woo; Kim, Yong-Tae; Song, Min-Kyu
PA Korea Institute of Science and Technology, S. Korea
SO PCT Int. Appl., 35 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002061873	A1	20020808	WO 2001-KR130	20010131 <--
	W: JP, KR, US				
	US 2005221194	A1	20051006	US 2003-275384	20030522 <--
	US 7097943	B2	20060829		
PRAI	WO 2001-KR130	W	20010131 <--		

AB The present invention relates to a UV-cured multi-component **polymer** blend **electrolyte**, **lithium** secondary

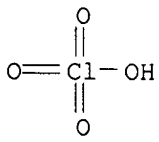
battery and their fabrication method, wherein the UV-cured multi-component **polymer** blend **electrolyte**, comprises: (A) function-I **polymer** obtained by curing ethylene glycol dimethacrylate oligomer of formula by UV irradiation, CH2=CR1COO(CH2CH2O)nCOCR2=CH2 wherein, R1 and R2 are independently a hydrogen or Me group, and n is an integer of 3-20; (B) function-II **polymer** selected from the group consisting of PAN-based **polymer**, PMMA-based **polymer** and mixts. thereof; (C) function-III **polymer** selected from the group consisting of PVdF-based **polymer**, PVC-based **polymer** and mixts. thereof; and (D) organic **electrolyte** solution in which **lithium** salt is dissolved in a solvent.

IT **7439-93-2**, **Lithium**, uses **7791-03-9**, **Lithium** perchlorate **9002-86-2**, Polyvinyl chloride **9010-88-2**, Ethyl acrylate-methyl methacrylate **copolymer** **9011-14-7**, Pmma **12031-65-1**, **Lithium** nickel oxide linio2 **12057-17-9**, **Lithium** manganese oxide limn2o4 **12190-79-3**, Cobalt **lithium** oxide colio2 **14283-07-9**, **Lithium** tetrafluoroborate **21324-40-3**, **Lithium** hexafluorophosphate **25086-15-1**, Methacrylic acid-methyl methacrylate **copolymer** **26570-48-9**, Polyethylene glycol diacrylate **29935-35-1**, **Lithium** hexafluoroarsenate **33454-82-9**, **Lithium** triflate **90076-65-6** **162004-08-2**, Cobalt **lithium** nickel oxide colinio2
RL: DEV (Device component use); USES (Uses)
(fabrication of **lithium** secondary battery with UV-cured multi-component **polymer** blend **electrolyte**)

RN 7439-93-2 HCAPLUS
CN Lithium (7CI, 8CI, 9CI) (CA INDEX NAME)

Li

RN 7791-03-9 HCAPLUS
CN Perchloric acid, lithium salt (8CI, 9CI) (CA INDEX NAME)



● Li

RN 9002-86-2 HCAPLUS
CN Ethene, chloro-, homopolymer (9CI) (CA INDEX NAME)

CM 1

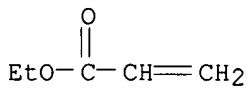
CRN 75-01-4
CMF C2 H3 Cl

$H_2C{=}CH{-}Cl$

RN 9010-88-2 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with ethyl 2-propenoate (9CI) (CA INDEX NAME)

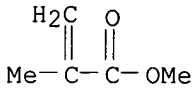
CM 1

CRN 140-88-5
CMF C5 H8 O2



CM 2

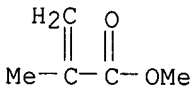
CRN 80-62-6
CMF C5 H8 O2



RN 9011-14-7 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, methyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 80-62-6
CMF C5 H8 O2



RN 12031-65-1 HCAPLUS
CN Lithium nickel oxide (LiNiO2) (6CI, 8CI, 9CI) (CA INDEX NAME)

Component	Ratio	Component Registry Number
O	2	17778-80-2
Ni	1	7440-02-0
Li	1	7439-93-2

RN 12057-17-9 HCAPLUS
CN Lithium manganese oxide (LiMn2O4) (6CI, 7CI, 9CI) (CA INDEX NAME)

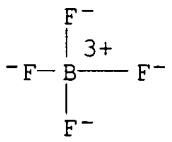
Component	Ratio	Component Registry Number
O	4	17778-80-2

Mn	2	7439-96-5
Li	1	7439-93-2

RN 12190-79-3 HCAPLUS
CN Cobalt lithium oxide (CoLiO2) (9CI) (CA INDEX NAME)

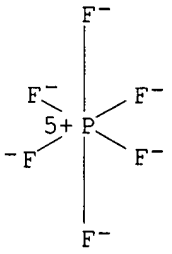
Component	Ratio	Component Registry Number
O	2	17778-80-2
Co	1	7440-48-4
Li	1	7439-93-2

RN 14283-07-9 HCAPLUS
CN Borate(1-), tetrafluoro-, lithium (8CI, 9CI) (CA INDEX NAME)



● Li^+

RN 21324-40-3 HCAPLUS
CN Phosphate(1-), hexafluoro-, lithium (8CI, 9CI) (CA INDEX NAME)

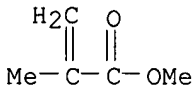


● Li^+

RN 25086-15-1 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, polymer with methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

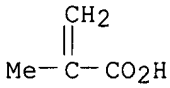
CM 1

CRN 80-62-6
CMF C5 H8 O2

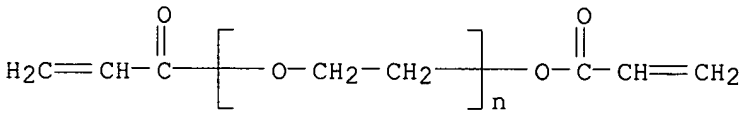


CM 2

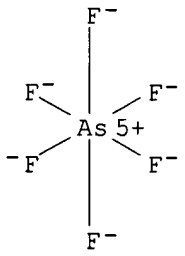
CRN 79-41-4
CMF C4 H6 O2



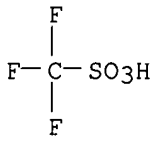
RN 26570-48-9 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-(1-oxo-2-propenyl)-ω-[(1-oxo-2-propenyl)oxy]- (9CI) (CA INDEX NAME)



RN 29935-35-1 HCAPLUS
CN Arsenate(1-), hexafluoro-, lithium (8CI, 9CI) (CA INDEX NAME)

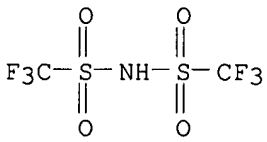


RN 33454-82-9 HCAPLUS
CN Methanesulfonic acid, trifluoro-, lithium salt (8CI, 9CI) (CA INDEX NAME)



● Li

RN 90076-65-6 HCAPLUS
CN Methanesulfonamide, 1,1,1-trifluoro-N-[(trifluoromethyl)sulfonyl]-, lithium salt (9CI) (CA INDEX NAME)

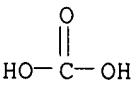


● Li

RN 162004-08-2 HCAPLUS
CN Cobalt lithium nickel oxide ((Co,Li,Ni)O2) (9CI) (CA INDEX NAME)

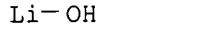
Component	Ratio	Component Registry Number
O	2	17778-80-2
Co	0 - 1	7440-48-4
Ni	0 - 1	7440-02-0
Li	0 - 1	7439-93-2

IT **554-13-2** **1310-65-2**, **Lithium** hydroxide (**Li**(OH)) **7789-24-4**, **Lithium** fluoride, uses **12003-67-7**, Aluminum **lithium** oxide allio2 **12057-24-8**, Lithia, uses **26134-62-3**, **Lithium** nitride (Li3N)
RL: MOA (Modifier or additive use); USES (Uses)
(porous filler; fabrication of **lithium** secondary battery with UV-cured multi-component **polymer** blend **electrolyte**)
RN 554-13-2 HCAPLUS
CN Carbonic acid, dilithium salt (8CI, 9CI) (CA INDEX NAME)



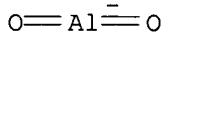
●2 Li

RN 1310-65-2 HCAPLUS
CN Lithium hydroxide (Li(OH)) (9CI) (CA INDEX NAME)

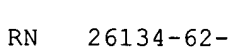


RN 7789-24-4 HCAPLUS
CN Lithium fluoride (LiF) (9CI) (CA INDEX NAME)

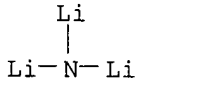
RN 12003-67-7 HCAPLUS
CN Aluminate (AlO21-), lithium (9CI) (CA INDEX NAME)



RN 12057-24-8 HCAPLUS
CN Lithium oxide (Li2O) (8CI, 9CI) (CA INDEX NAME)



RN 26134-62-3 HCAPLUS
CN Lithium nitride (Li3N) (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Kist	2000			KR1020000003091 A	
Kist	2000			KR1020000003092 A	
Matsushita Electric Ind	1990			JP 02-144860 A	HCAPLUS
Matsushita Electric Ind	1999			JP 11-054154 A	HCAPLUS
Polystor Corporation	1998			US 05783333 A	HCAPLUS
Sanyo Electric Co Ltd	1994			JP 06-333597 A	HCAPLUS
Sharp Kabushiki Kaisha	2000			US 06040092 A	HCAPLUS

L198 ANSWER 25 OF 38 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2002:585696 HCAPLUS
DN 137:111647
TI Secondary **Li** ion battery using colloidal **polymer** as **electrolyte** and its preparing process
IN Gu, Hui; Huang, Xuejie; Chen, Liquan

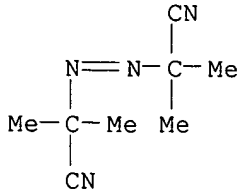
PA Inst. of Physics, Chinese Academy of Sciences, Peop. Rep. China
SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 33 pp.
CODEN: CNXXEV
DT Patent
LA Chinese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI CN 1315752	A	20011003	CN 2000-105541	20000330 <--
PRAI CN 2000-105541		20000330 <--		

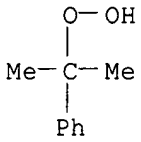
AB The battery consists of an anode with a carbonaceous material as active material, a cathode with LiCoO2, LiNiO2, or LiMn2O4 as active material, colloidal **polymer electrolyte, polymer** separator, etc. The colloidal **polymer electrolyte** is prepared from: (1) monomers such as Me methacrylate, Bu methacrylate, isooctyl methacrylate, allyl methacrylate, Me acrylate, Et acrylate, Bu acrylate, polyethylene glycol alkyl ether monoacrylate, polyethylene glycol diacrylate, polyethylene glycol alkyl ether monomethacrylate, or polyethylene glycol dimethacrylate, (2) solvent for the **electrolyte** such as ethylene carbonate, propylene carbonate, di-Me carbonate, di-Et carbonate, ethylmethyl carbonate, or dimethoxyethane, (3) soluble **Li** salt such as LiN(CF3SO2)3, LiClO4, LiBF4, LiPF6, LiCF3SO3, LiNH(CF3SO2)2, or LiAsF6, (4) **initiators** such as AIBN, 2,2'- azobis(isoheptyronitrile), 2-tert-Bu oxide, dicumyl peroxide, benzoyl superoxide, dilauroyl peroxide, isopropylbenzene hydroperoxide, diisopropyl pyrocarbonate, dicyclohexyl pyrocarbonate, cyclohexane carboxylate, organometallic compds., triethylboron, combination of benzoyl superoxide and N,N-di-Me aniline, benzoin iso-Bu ether, benzoin iso-Pr ether, benzoin Me ether, benzoin Et ether, benzophenone, acetophenone, diethoxyacetophenone, etc., (5) nanometer SiO2 or Al2O3, amorphous film separator of **polymers** such as polypropylene, polyethylene, poly(vinylidene fluoride), PAN, or fiber- or powder- reinforced polyethylene glycol.

IT **78-67-1**, AIBN **80-15-9**, Isopropylbenzene hydroperoxide **80-43-3**, Dicumyl peroxide **94-36-0**, Benzoyl superoxide, uses **105-74-8**, Dilauroyl peroxide **110-05-4**, Bis(tert-Butyl) peroxide **7791-03-9**, **Lithium** perchlorate **12031-65-1**, **Lithium** nickel oxide (LiNiO2) **12057-17-9**, **Lithium** manganese oxide (LiMn2O4) **12190-79-3**, Cobalt **lithium** oxide (LiCoO2) **14283-07-9**, **Lithium** tetrafluoroborate (LiBF4) **21324-40-3**, **Lithium** hexafluorophosphate (LiPF6) **29935-35-1**, **Lithium** hexafluoroarsenate (LiAsF6) **33454-82-9 90076-65-6**
RL: CPS (Chemical process); DEV (Device component use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
(secondary **Li** ion battery using colloidal **polymer** as **electrolyte** and preparing process)

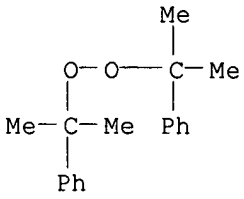
RN 78-67-1 HCAPLUS
CN Propanenitrile, 2,2'-azobis[2-methyl- (9CI) (CA INDEX NAME)



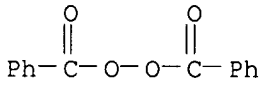
RN 80-15-9 HCAPLUS
CN Hydroperoxide, 1-methyl-1-phenylethyl (9CI) (CA INDEX NAME)



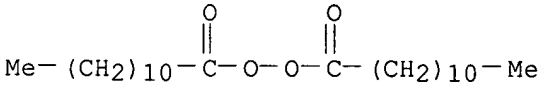
RN 80-43-3 HCAPLUS
CN Peroxide, bis(1-methyl-1-phenylethyl) (9CI) (CA INDEX NAME)



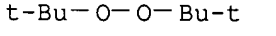
RN 94-36-0 HCAPLUS
CN Peroxide, dibenzoyl (9CI) (CA INDEX NAME)



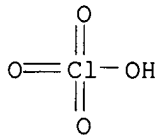
RN 105-74-8 HCAPLUS
CN Peroxide, bis(1-oxododecyl) (9CI) (CA INDEX NAME)



RN 110-05-4 HCAPLUS
CN Peroxide, bis(1,1-dimethylethyl) (9CI) (CA INDEX NAME)



RN 7791-03-9 HCAPLUS
CN Perchloric acid, lithium salt (8CI, 9CI) (CA INDEX NAME)



● Li

RN 12031-65-1 HCAPLUS
CN Lithium nickel oxide (LiNiO2) (6CI, 8CI, 9CI) (CA INDEX NAME)

Component	Ratio	Component Registry Number
O	2	17778-80-2
Ni	1	7440-02-0
Li	1	7439-93-2

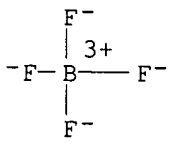
RN 12057-17-9 HCAPLUS
CN Lithium manganese oxide (LiMn2O4) (6CI, 7CI, 9CI) (CA INDEX NAME)

Component	Ratio	Component Registry Number
O	4	17778-80-2
Mn	2	7439-96-5
Li	1	7439-93-2

RN 12190-79-3 HCAPLUS
CN Cobalt lithium oxide (CoLiO2) (9CI) (CA INDEX NAME)

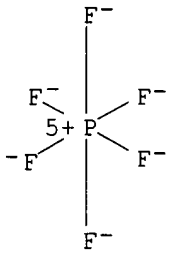
Component	Ratio	Component Registry Number
O	2	17778-80-2
Co	1	7440-48-4
Li	1	7439-93-2

RN 14283-07-9 HCAPLUS
CN Borate(1-), tetrafluoro-, lithium (8CI, 9CI) (CA INDEX NAME)



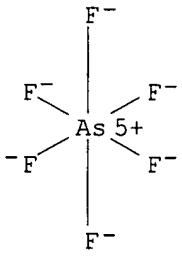
● Li^+

RN 21324-40-3 HCAPLUS
CN Phosphate(1-), hexafluoro-, lithium (8CI, 9CI) (CA INDEX NAME)



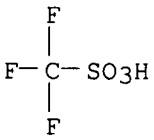
● Li^+

RN 29935-35-1 HCAPLUS
CN Arsenate(1-), hexafluoro-, lithium (8CI, 9CI) (CA INDEX NAME)



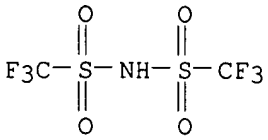
● Li^+

RN 33454-82-9 HCAPLUS
CN Methanesulfonic acid, trifluoro-, lithium salt (8CI, 9CI) (CA INDEX NAME)



● Li

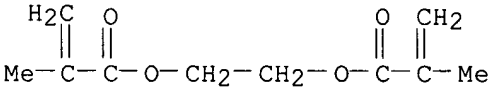
RN 90076-65-6 HCAPLUS
CN Methanesulfonamide, 1,1,1-trifluoro-N-[(trifluoromethyl)sulfonyl]-, lithium salt (9CI) (CA INDEX NAME)



IT **25721-76-0**, Polyethylene glycol dimethacrylate **28158-16-9**
, Poly(ethylene glycol diacrylate)
RL: CPS (Chemical process); DEV (Device component use); PEP (Physical, engineering or chemical process); RCT (Reactant); PROC (Process); RACT (Reactant or reagent); USES (Uses)
(secondary **Li** ion battery using colloidal **polymer** as **electrolyte** and preparing process)
RN 25721-76-0 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 1,2-ethanediyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

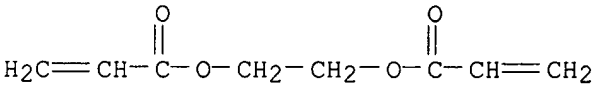
CRN 97-90-5
CMF C10 H14 O4



RN 28158-16-9 HCAPLUS
CN 2-Propenoic acid, 1,2-ethanediyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 2274-11-5
CMF C8 H10 O4



L198 ANSWER 26 OF 38 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2002:446203 HCAPLUS
DN 137:35471
TI **Polymer** gel **electrolyte** secondary cell and electrical double-layer capacitor
IN Yoshida, Hiroshi; Hata, Kimiyo; Maruo, Tatsuya; Sato, Takaya
PA Nisshinbo Industries, Inc., Japan
SO Eur. Pat. Appl., 34 pp.
CODEN: EPXXDW
DT Patent
LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1213778	A2	20020612	EP 2001-310223	20011206 <--
	EP 1213778	A3	20050511		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	JP 2002175837	A2	20020621	JP 2000-371277	20001206 <--
	CA 2364298	AA	20020606	CA 2001-2364298	20011205 <--
	US 2002102464	A1	20020801	US 2001-2171	20011205 <--
	US 6949317	B2	20050927		
	US 2005231894	A1	20051020	US 2005-127272	20050512 <--
	US 7088572	B2	20060808		
PRAI	JP 2000-371277	A	20001206 <--		
	US 2001-2171	A3	20011205 <--		

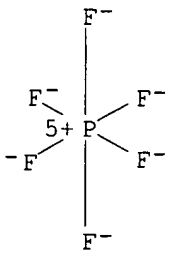
AB A **polymer** gel **electrolyte** includes an **electrolyte** solution composed of a plasticizer with at least two carbonate structures on the mol. and an **electrolyte** salt, in combination with a matrix **polymer**. Secondary batteries made with the **polymer** gel **electrolyte** can operate at a high capacitance and a high current, have a broad service temperature range and a high level of safety, and are thus particularly well-suited for use in such applications as **lithium** secondary cells and **lithium** ion secondary cells. Elec. double-layer capacitors made with the **polymer** gel **electrolyte** have a high output voltage, a large output current, a broad service temperature range and excellent safety.

IT **7439-93-2**, **Lithium**, uses **21324-40-3**, **Lithium** hexafluorophosphate **437552-20-0**
RL: DEV (Device component use); USES (Uses)
(**polymer** gel **electrolyte** secondary cell and elec. double-layer capacitor)

RN 7439-93-2 HCAPLUS
CN Lithium (7CI, 8CI, 9CI) (CA INDEX NAME)

Li

RN 21324-40-3 HCAPLUS
CN Phosphate(1-), hexafluoro-, lithium (8CI, 9CI) (CA INDEX NAME)



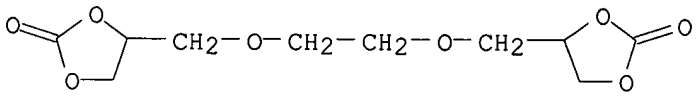
● Li^+

RN 437552-20-0 HCAPLUS
CN Carbonic acid, diethyl ester, polymer with 4,4'-[1,2-

ethanediylbis(oxymethylene)]bis[1,3-dioxolan-2-one] and
α-(2-methyl-1-oxo-2-propenyl)-ω-methoxypoly(oxy-1,2-
ethanediyl) (9CI) (CA INDEX NAME)

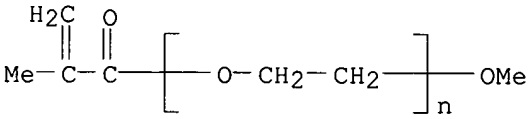
CM 1

CRN 116170-01-5
CMF C10 H14 O8



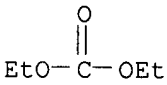
CM 2

CRN 26915-72-0
CMF (C2 H4 O)n C5 H8 O2
CCI PMS



CM 3

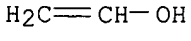
CRN 105-58-8
CMF C5 H10 O3



IT **9002-89-5DP**, Polyvinyl alcohol, cyanoethylated
437552-21-1P
RL: DEV (Device component use); SPN (Synthetic preparation); PREP
(Preparation); USES (Uses)
(**polymer** gel **electrolyte** secondary cell and elec.
double-layer capacitor)
RN 9002-89-5 HCAPLUS
CN Ethenol, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 557-75-5
CMF C2 H4 O

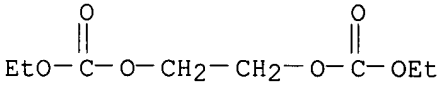


RN 437552-21-1 HCAPLUS

CN Carbonic acid, 1,2-ethanediyl diethyl ester, polymer with α-(2-methyl-1-oxo-2-propenyl)-ω-methoxypoly(oxy-1,2-ethanediyl) (9CI) (CA INDEX NAME)

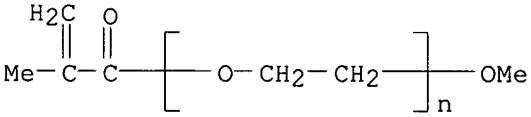
CM 1

CRN 35466-87-6
CMF C8 H14 O6

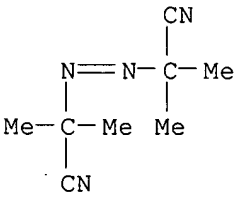


CM 2

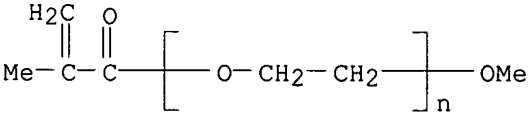
CRN 26915-72-0
CMF (C2 H4 O)n C5 H8 O2
CCI PMS



IT **78-67-1**, Azobisisobutyronitrile **26915-72-0**, Methoxypolyethylene glycol monomethacrylate
RL: MOA (Modifier or additive use); USES (Uses)
(**polymer** gel **electrolyte** secondary cell and elec. double-layer capacitor)
RN 78-67-1 HCAPLUS
CN Propanenitrile, 2,2'-azobis[2-methyl- (9CI) (CA INDEX NAME)



RN 26915-72-0 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-(2-methyl-1-oxo-2-propenyl)-ω-methoxy- (9CI) (CA INDEX NAME)



L198 ANSWER 27 OF 38 HCAPLUS COPYRIGHT 2006 ACS on STN

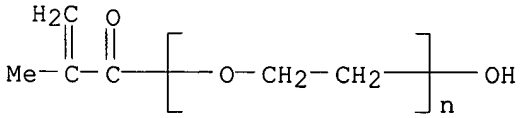
AN 2002:172424 HCAPLUS
DN 136:234631
TI Gel electrolyte **lithium** battery with improved safety and reliability
IN Lee, Yong-beom
PA **Samsung SDI Co., Ltd., S. Korea**
SO U.S. Pat. Appl. Publ., 12 pp.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2002028388	A1	20020307	US 2001-938302	20010824 <--
	US 6680147	B2	20040120		
	KR 2002019212	A	20020312	KR 2000-52364	20000905 <--
	KR 2002019213	A	20020312	KR 2000-52365	20000905 <--
	CN 1341977	A	20020327	CN 2001-123114	20010713 <--
	JP 2002151150	A2	20020524	JP 2001-269134	20010905 <--
PRAI	KR 2000-52364	A	20000905 <--		
	KR 2000-52365	A	20000905 <--		

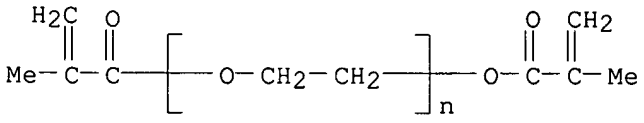
AB A **lithium** battery which includes an electrode assembly having a cathode, an anode and a separator interposed between the cathode and the anode, a gel electrolyte prepared by curing a composition consisting of a polysiloxane compound or a polysiloxane-polyoxyalkylene compound, a polyethylene glycol derivative, and an organic solvent containing a **lithium** salt. The **lithium** battery has improved reliability and safety since a swelling phenomenon due to an electrolytic solution is effectively suppressed and leakage of the electrolytic solution is prevented.

IT **25736-86-1**, Polyethylene glycol monomethacrylate **25852-47-5**, Polyethylene glycol dimethacrylate **26403-58-7**, Polyethylene glycol monoacrylate **26570-48-9**, Polyethylene glycol diacrylate
RL: CPS (Chemical process); DEV (Device component use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
(gel electrolyte **lithium** battery with improved safety and reliability)

RN 25736-86-1 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-(2-methyl-1-oxo-2-propenyl)-ω-hydroxy- (9CI) (CA INDEX NAME)

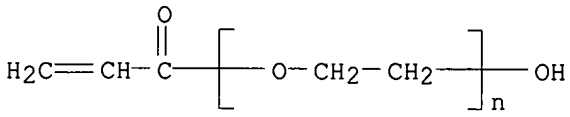


RN 25852-47-5 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-(2-methyl-1-oxo-2-propenyl)-ω-[(2-methyl-1-oxo-2-propenyl)oxy]- (9CI) (CA INDEX NAME)

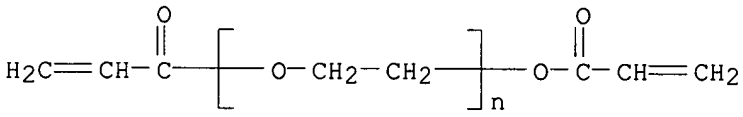


RN 26403-58-7 HCAPLUS

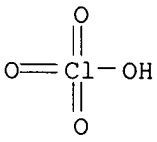
CN Poly(oxy-1,2-ethanediyl), α-(1-oxo-2-propenyl)-ω-hydroxy- (9CI) (CA INDEX NAME)



RN 26570-48-9 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-(1-oxo-2-propenyl)-ω-[(1-oxo-2-propenyl)oxy]- (9CI) (CA INDEX NAME)



IT **7791-03-9**, **Lithium** perchlorate **12190-79-3**, Cobalt **lithium** oxide colio2 **14283-07-9**, **Lithium** tetrafluoroborate **21324-40-3**, **Lithium** hexafluorophosphate **29935-35-1**, **Lithium** hexafluoroarsenate **33454-82-9**, **Lithium** triflate **90076-65-6**
RL: DEV (Device component use); USES (Uses)
(gel electrolyte **lithium** battery with improved safety and reliability)
RN 7791-03-9 HCAPLUS
CN Perchloric acid, lithium salt (8CI, 9CI) (CA INDEX NAME)

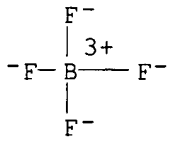


● Li

RN 12190-79-3 HCAPLUS
CN Cobalt lithium oxide (CoLiO2) (9CI) (CA INDEX NAME)

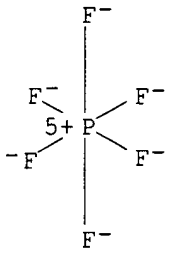
Component	Ratio	Component Registry Number
O	2	17778-80-2
Co	1	7440-48-4
Li	1	7439-93-2

RN 14283-07-9 HCAPLUS
CN Borate(1-), tetrafluoro-, lithium (8CI, 9CI) (CA INDEX NAME)



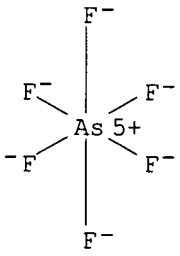
● Li^+

RN 21324-40-3 HCAPLUS
CN Phosphate(1-), hexafluoro-, lithium (8CI, 9CI) (CA INDEX NAME)



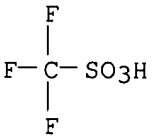
● Li^+

RN 29935-35-1 HCAPLUS
CN Arsenate(1-), hexafluoro-, lithium (8CI, 9CI) (CA INDEX NAME)

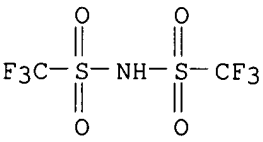


● Li^+

RN 33454-82-9 HCAPLUS
CN Methanesulfonic acid, trifluoro-, lithium salt (8CI, 9CI) (CA INDEX NAME)

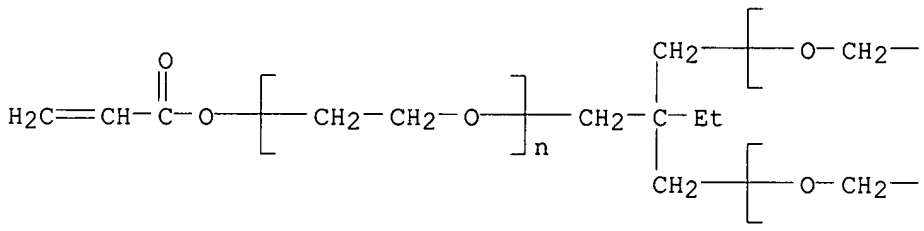


RN 90076-65-6 HCAPLUS
CN Methanesulfonamide, 1,1,1-trifluoro-N-[(trifluoromethyl)sulfonyl]-, lithium salt (9CI) (CA INDEX NAME)

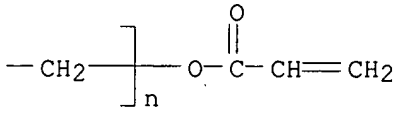


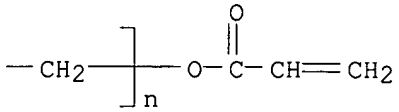
IT **28961-43-5D**, ethoxylated
RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)
(gel electrolyte **lithium** battery with improved safety and reliability)
RN 28961-43-5 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-hydro-ω-[(1-oxo-2-propenyl)oxy]-, ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) (9CI) (CA INDEX NAME)

PAGE 1-A

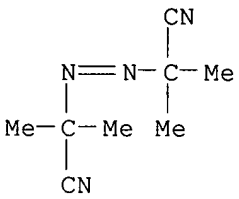


PAGE 1-B

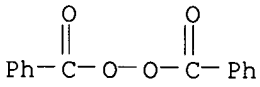




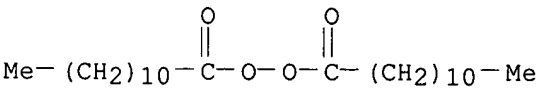
IT **78-67-1**, Azobisisobutyronitrile **94-36-0**, Benzoyl peroxide, processes **105-74-8**, Lauroyl peroxide
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PROC (Process)
(**polymerization initiator**; gel **electrolyte** **lithium** battery with improved safety and reliability)
RN 78-67-1 HCAPLUS
CN Propanenitrile, 2,2'-azobis[2-methyl- (9CI) (CA INDEX NAME)



RN 94-36-0 HCAPLUS
CN Peroxide, dibenzoyl (9CI) (CA INDEX NAME)



RN 105-74-8 HCAPLUS
CN Peroxide, bis(1-oxododecyl) (9CI) (CA INDEX NAME)



L198 ANSWER 28 OF 38 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2002:122598 HCAPLUS
DN 136:186628
TI Ion conductivity gel **electrolyte** and electrochemical apparatus
IN Amanokura, Hitoshi; Sonobe, Hiroyuki; Uehara, Hideaki; Mashimo, Kiyotaka; Suzuki, Kenji
PA Hitachi Chemical Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 13 pp.
CODEN: JKXXAF

DT Patent
LA Japanese
FAN.CNT 1

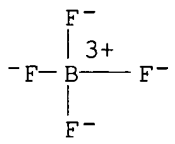
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002050399	A2	20020215	JP 2000-235773	20000803 <--

PRAI JP 2000-235773 20000803 <--

AB The **electrolyte** contains a resin, an **electrolyte** solution, and a **photopolymn. initiator**, which is an amino group containing benzophenone derivative The electrochem. apparatus is preferably a secondary **Li** battery.

IT **14283-07-9**, **Lithium** fluoroborate
RL: DEV (Device component use); USES (Uses)
(aminobenzophenone derivative photoinitiators in ion conductive gel **electrolytes** for secondary **lithium** batteries)

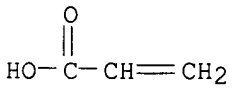
RN 14283-07-9 HCAPLUS
CN Borate(1-), tetrafluoro-, lithium (8CI, 9CI) (CA INDEX NAME)



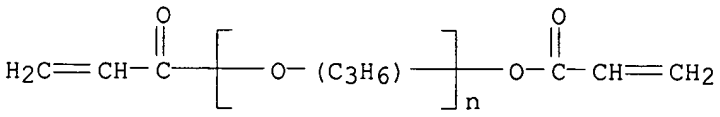
● Li^+

IT **79-10-7D**, Acrylic acid, **copolymers** with epoxy resins
52496-08-9, Apg 400
RL: DEV (Device component use); USES (Uses)
(ion conductive gel **electrolytes** containing aminobenzophenone derivative photoinitiators for secondary **lithium** batteries)

RN 79-10-7 HCAPLUS
CN 2-Propenoic acid (9CI) (CA INDEX NAME)



RN 52496-08-9 HCAPLUS
CN Poly[oxy(methyl-1,2-ethanediyl)], α-(1-oxo-2-propenyl)-ω-[(1-oxo-2-propenyl)oxy]- (9CI) (CA INDEX NAME)



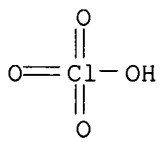
L198 ANSWER 29 OF 38 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2001:850854 HCAPLUS

DN 135:374181
TI Method of manufacturing a **polymer** gel **electrolyte** battery or capacitor
IN Sato, Takaya; Shimizu, Tatsuo
PA Nisshinbo Industries, Inc., Japan; Itochu Corporation
SO Eur. Pat. Appl., 24 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1156547	A1	20011121	EP 2001-111816	20010515 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	JP 2001325991	A2	20011122	JP 2000-141687	20000515 <--
	CA 2347408	AA	20011115	CA 2001-2347408	20010511 <--
	US 2002042986	A1	20020418	US 2001-853050	20010511 <--
	US 6793692	B2	20040921		
	SG 100695	A1	20031226	SG 2001-2795	20010511 <--
	CN 1324117	A	20011128	CN 2001-116134	20010515 <--
	TW 512556	B	20021201	TW 2001-90111551	20010515 <--
	EP 1300904	A1	20030409	EP 2003-421	20010515 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, LT, LV, FI, RO, MK, CY, AL, TR				
	US 2004001302	A1	20040101	US 2003-607956	20030627 <--
PRAI	JP 2000-141687	A	20000515 <--		
	US 2001-853050	A3	20010511 <--		
	EP 2001-111816	A3	20010515 <--		

AB The invention discloses a method for manufacturing an elec. component, in which ions migrate between electrodes and which provides high efficiency. In the method for manufacturing an elec. component, in which ions migrate between electrodes, an ion conductive polymer layer dissolving ions is formed on an electrode material layer of at least one of a pair of electrode structures which comprise an electrode material layer formed on a current collector. The pair of electrode structures are arranged at opposed positions with the current collector facing outward, and this arrangement is accommodated in an accommodation unit, and liquid electrolyte is injected into the accommodation unit.

IT **7791-03-9**, **Lithium** perchlorate **12190-79-3**, Cobalt **lithium** oxide colio2
RL: DEV (Device component use); USES (Uses)
(method of manufacturing **polymer** gel **electrolyte** battery or capacitor)
RN 7791-03-9 HCAPLUS
CN Perchloric acid, lithium salt (8CI, 9CI) (CA INDEX NAME)



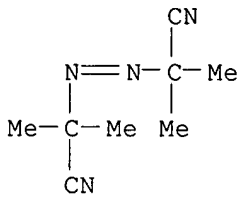
● Li

RN 12190-79-3 HCAPLUS

CN Cobalt lithium oxide (CoLiO2) (9CI) (CA INDEX NAME)

Component	Ratio	Component Registry Number
O	2	17778-80-2
Co	1	7440-48-4
Li	1	7439-93-2

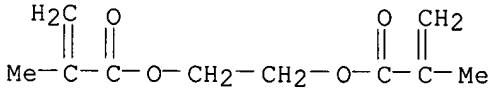
IT **78-67-1**, Azobisisobutyronitrile **25721-76-0**, Polyethylene glycol dimethacrylate **26915-72-0**, Methoxypolyethylene glycol monomethacrylate
RL: MOA (Modifier or additive use); USES (Uses)
(method of manufacturing **polymer** gel **electrolyte** battery or capacitor)
RN 78-67-1 HCAPLUS
CN Propanenitrile, 2,2'-azobis[2-methyl- (9CI) (CA INDEX NAME)



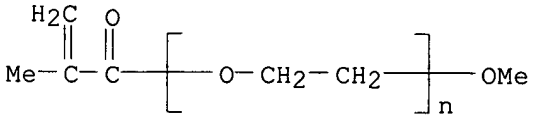
RN 25721-76-0 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 1,2-ethanediyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 97-90-5
CMF C10 H14 O4



RN 26915-72-0 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-(2-methyl-1-oxo-2-propenyl)-ω-methoxy- (9CI) (CA INDEX NAME)



RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Anon	1997	1997		PATENT ABSTRACTS OF	
Basf Ag	2000			DE 19830993 A	HCAPLUS

Clericuzio, M	1995	82	179	SOLID STATE IONICS	
Koninkl Philips Electro	1999			WO 9949531 A	HCAPLUS
Nisshinbo Ind Inc	1996			JP 08225626 A	HCAPLUS
Osaka, T	1998	74	122	JOURNAL OF POWER SOU	HCAPLUS
Sony Corp	2000			EP 1041658 A	HCAPLUS
Sony Corporation	2000			WO 0013252 A	HCAPLUS

L198 ANSWER 30 OF 38 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2001:192598 HCAPLUS
DN 134:210599
TI Long cycle-life alkali metal battery with cathode coated with a very thin protective film
IN Peled, Emanuel; Golodnitsky, Diana; Strauss, Ela
PA Ramot University Authority for Applied Research and Industrial Development L, Israel
SO U.S., 16 pp.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6203947	B1	20010320	US 1999-280646	19990329 <--
	IL 124007	A1	20010826	IL 1998-124007	19980408 <--
PRAI	IL 1998-124007	A	19980408 <--		

AB The present invention provides a cathode for use in a secondary electrochem. cell, such cathode being coated with a very thin, protective film, permeable to ions. The protective film of the cathode usually has a thickness of up to about 0.1 μm and it provides protection against high voltage charging and overdischarging. The present invention further provides a secondary electrochem. cell comprising such a cathode.
IT **7439-93-2**, **Lithium**, uses **7550-35-8**, **Lithium** bromide **10377-51-2**, **Lithium** iodide **10411-26-4**, Butyl carbonate **12031-65-1**, **Lithium** nickel oxide linio2 **12057-17-9**, **Lithium** manganese oxide limn2o4 **12190-79-3**, Cobalt **lithium** oxide colio2 **14283-07-9**, **Lithium** tetrafluoroborate **21324-40-3**, **Lithium** hexafluorophosphate **26098-78-2**, Ethylene oxide-methylmethacrylate copolymer **90076-65-6**
RL: DEV (Device component use); USES (Uses)
(long cycle-life alkali metal battery with cathode coated with very thin protective film)
RN 7439-93-2 HCAPLUS
CN Lithium (7CI, 8CI, 9CI) (CA INDEX NAME)

Li

RN 7550-35-8 HCAPLUS
CN Lithium bromide (LiBr) (9CI) (CA INDEX NAME)

Br—Li

RN 10377-51-2 HCAPLUS
CN Lithium iodide (LiI) (9CI) (CA INDEX NAME)

I—Li

RN 10411-26-4 HCAPLUS
CN Carbonic acid, monobutyl ester (8CI, 9CI) (CA INDEX NAME)

n-Bu—O—CO_2H

RN 12031-65-1 HCAPLUS
CN Lithium nickel oxide (LiNiO2) (6CI, 8CI, 9CI) (CA INDEX NAME)

Component	Ratio	Component Registry Number
O	2	17778-80-2
Ni	1	7440-02-0
Li	1	7439-93-2

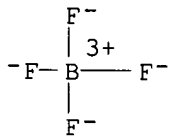
RN 12057-17-9 HCAPLUS
CN Lithium manganese oxide (LiMn2O4) (6CI, 7CI, 9CI) (CA INDEX NAME)

Component	Ratio	Component Registry Number
O	4	17778-80-2
Mn	2	7439-96-5
Li	1	7439-93-2

RN 12190-79-3 HCAPLUS
CN Cobalt lithium oxide (CoLiO2) (9CI) (CA INDEX NAME)

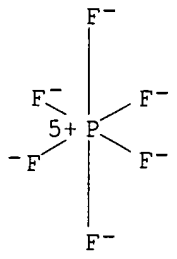
Component	Ratio	Component Registry Number
O	2	17778-80-2
Co	1	7440-48-4
Li	1	7439-93-2

RN 14283-07-9 HCAPLUS
CN Borate(1-), tetrafluoro-, lithium (8CI, 9CI) (CA INDEX NAME)



● Li^+

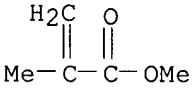
RN 21324-40-3 HCAPLUS
CN Phosphate(1-), hexafluoro-, lithium (8CI, 9CI) (CA INDEX NAME)



RN 26098-78-2 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with oxirane (9CI) (CA INDEX NAME)

CM 1

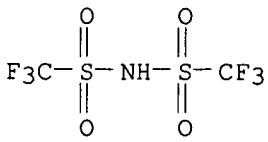
CRN 80-62-6
CMF C5 H8 O2



CM 2

CRN 75-21-8
CMF C2 H4 O

RN 90076-65-6 HCAPLUS
CN Methanesulfonamide, 1,1,1-trifluoro-N-[(trifluoromethyl)sulfonyl]-, lithium salt (9CI) (CA INDEX NAME)

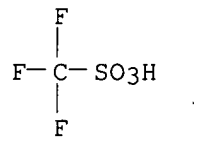


IT **7439-93-2D, Lithium**, polyethylene oxide complex, uses
RL: MOA (Modifier or additive use); USES (Uses)

(long cycle-life alkali metal battery with cathode coated with very thin protective film)
RN 7439-93-2 HCAPLUS
CN Lithium (7CI, 8CI, 9CI) (CA INDEX NAME)

Li

IT **33454-82-9, Lithium** triflate
RL: DEV (Device component use); USES (Uses)
(stainless steel coated with; long cycle-life alkali metal battery with cathode coated with very thin protective film)
RN 33454-82-9 HCAPLUS
CN Methanesulfonic acid, trifluoro-, lithium salt (8CI, 9CI) (CA INDEX NAME)



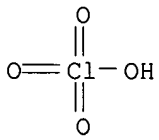
RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Carlin	1996			US 5552238	HCAPLUS
Peled	1995			US 5472808	HCAPLUS
Peled	1997	144		J Electrochem, Soc	HCAPLUS
Peled	1983	9	253	Journal of Power Sou	HCAPLUS
Peled	1983	9	253	Journal of Power Sou	HCAPLUS
Schmidt	1980			US 4224394	
Schmidt	1981			US 4298668	
Strauss	1999	2	115	Electrochemical and	HCAPLUS

L198 ANSWER 31 OF 38 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2001:107928 HCAPLUS
DN 134:165660
TI Crosslinking agents, crosslinked solid **polymer electrolytes**, and secondary **lithium polymer** batteries
IN Kang, Yong Koo; Kim, Eun Kyung; Kim, Ha Young; Oh, Bu Keun; Cho, Jae Hyun
PA **Samsung SDI Co., Ltd., S. Korea**; Korea Research Institute of Chemical Technology
SO Jpn. Kokai Tokkyo Koho, 14 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

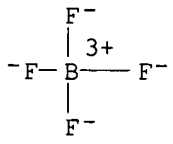
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2001040168	A2	20010213	JP 2000-195197	20000628 <--
JP 3328262	B2	20020924		
KR 2001004121	A	20010115	KR 1999-24732	19990628 <--

US 6395429 B1 20020528 US 2000-604882 20000628 <--
PRAI KR 1999-24732 A 19990628 <--
OS MARPAT 134:165660
AB The crosslinking agents are represented as R1:CR4CO(OCH2CH2)pAX[A(CH2CH2O)qCOCR5:R2]A(CH2CH2O)lCOCR6:R3 [I; A = O, CO2, or C1-4 alkylene; X is selected from cyclohexane, benzene, triazine, trioxane, and isocyanurate; R1, R2, and R3 = C1-10 straight (or branched) olefin; R4, R5, and R6 = H or Me; p, q, and r = 1-20]. The solid **polymer electrolytes** are crosslinked compns. of (1) crosslinking agents I, (2) polyalkylene glycol alkyl ether alkyl (meth)acrylates, (3) **Li** salts, and (4) crosslinking **initiators**. Optionally, the electrolytes contain polyalkylene glycol dialkyl ethers. Secondary **Li** batteries containing the above **polymer electrolytes** are also claimed. Thus, a composition containing tris(2-acryloyloxyethyl)isocyanurate, polyethylene glycol Me ether methacrylate, polyethylene glycol di-Me ether, dimethoxyphenyl acetophenone, and LiCF3SO3 was crosslinked by UV irradiation to give an electrolyte having high ion conductivity and strength, which was applied to a secondary battery.
IT **7791-03-9, Lithium** perchlorate **14283-07-9, Lithium** tetrafluoroborate **21324-40-3, Lithium** hexafluorophosphate **29935-35-1, Lithium** hexafluoroarsenate **33454-82-9, Lithium** trifluoromethanesulfonate
RL: DEV (Device component use); USES (Uses)
(polyoxyalkylene-based electrolytes crosslinked with acryloyloyethyl derivs. for **lithium** batteries)
RN 7791-03-9 HCAPLUS
CN Perchloric acid, lithium salt (8CI, 9CI) (CA INDEX NAME)



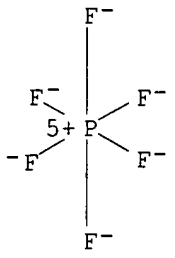
● Li

RN 14283-07-9 HCAPLUS
CN Borate(1-), tetrafluoro-, lithium (8CI, 9CI) (CA INDEX NAME)



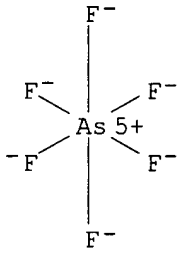
● Li^+

RN 21324-40-3 HCAPLUS
CN Phosphate(1-), hexafluoro-, lithium (8CI, 9CI) (CA INDEX NAME)



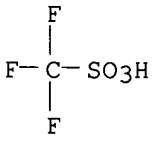
● Li^+

RN 29935-35-1 HCAPLUS
CN Arsenate(1-), hexafluoro-, lithium (8CI, 9CI) (CA INDEX NAME)



● Li^+

RN 33454-82-9 HCAPLUS
CN Methanesulfonic acid, trifluoro-, lithium salt (8CI, 9CI) (CA INDEX NAME)



● Li

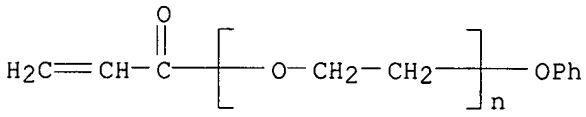
IT **7439-93-2DP, Lithium**, polyoxyalkylene complexes, uses
56641-05-5DP, polymers with acryloyloxyethyl monomers, **lithium** complexes **83844-54-6DP**, Polypropylene glycol methyl ether acrylate, **polymers** with acryloyloxyethyl monomers, **lithium** complexes **325719-52-6DP, lithium** complexes **325719-53-7DP, lithium** complexes
RL: DEV (Device component use); PNU (Preparation, unclassified); PRP

(Properties); PREP (Preparation); USES (Uses)
(polyoxyalkylene-based **electrolytes** crosslinked with acryloyloyethyl derivs. for **lithium** batteries)

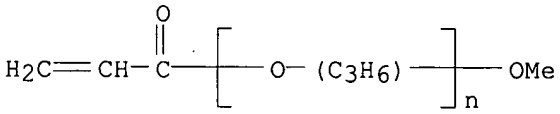
RN 7439-93-2 HCAPLUS
CN Lithium (7CI, 8CI, 9CI) (CA INDEX NAME)

Li

RN 56641-05-5 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-(1-oxo-2-propenyl)-ω-phenoxy- (9CI) (CA INDEX NAME)



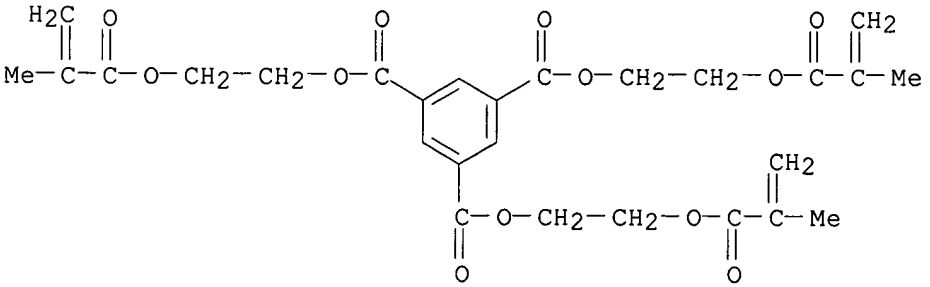
RN 83844-54-6 HCAPLUS
CN Poly[oxy(methyl-1,2-ethanediyl)], α-(1-oxo-2-propenyl)-ω-methoxy- (9CI) (CA INDEX NAME)



RN 325719-52-6 HCAPLUS
CN 1,3,5-Benzenetricarboxylic acid, tris[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl] ester, polymer with α-(2-methyl-1-oxo-2-propenyl)-ω-methoxypoly[oxy(methyl-1,2-ethanediyl)] (9CI) (CA INDEX NAME)

CM 1

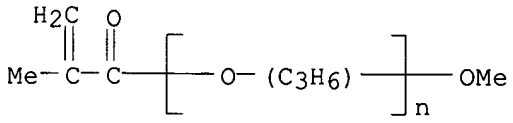
CRN 158464-09-6
CMF C27 H30 O12



CM 2

CRN 65932-26-5

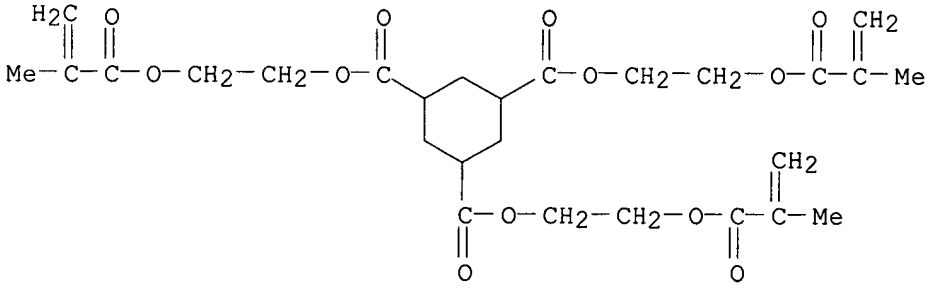
CMF (C3 H6 O)n C5 H8 O2
CCI IDS, PMS



RN 325719-53-7 HCAPLUS
CN 1,3,5-Cyclohexanetricarboxylic acid, tris[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl] ester, polymer with α-(2-methyl-1-oxo-2-propenyl)-ω-methoxypoly[oxy(methyl-1,2-ethanediyl)] (9CI) (CA INDEX NAME)

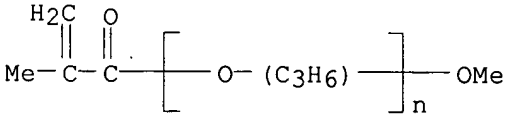
CM 1

CRN 325705-58-6
CMF C27 H36 O12



CM 2

CRN 65932-26-5
CMF (C3 H6 O)n C5 H8 O2
CCI IDS, PMS



L198 ANSWER 32 OF 38 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2000:819240 HCAPLUS
DN 133:351062
TI Covalently and physically crosslinked **polymer** network **polyelectrolytes** and production method thereof
IN Yamamoto, Toru; Murata, Toshihide
PA Matsushita Electric Industrial Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DT Patent
LA Japanese

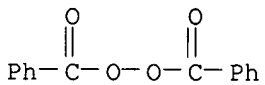
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000319531	A2	20001121	JP 1999-134821	19990514 <--
PRAI	JP 1999-134821		19990514 <--		

AB Title **polyelectrolytes** comprise covalently and phys. crosslinked **polymer** networks and charge carriers and are useful for nonaq. **electrolyte** secondary batteries. Thus, a thermosetting resin precursor comprising oligomeric epoxy resin acrylate 50, pentaerythritol triacrylate 8, and benzoyl peroxide 2 part was mixed with 5 parts acrylonitrile-methacrylic acid **copolymer** (mol ratio 97:3) 15, LiBF4 20, ethylene carbonate 100, and propylene carbonate 50 parts and cured at 120° for 60 min between two stainless steel plates to give a **polyelectrolyte** giving a **lithium** battery with good heat resistance and high-rate discharge and capacity retaining characteristics.

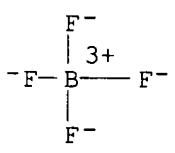
IT **94-36-0**, Benzoyl peroxide, uses
RL: CAT (Catalyst use); USES (Uses)
(crosslinking catalyst; preparation of covalently and phys. crosslinked **polymer** network **polyelectrolytes** useful for batteries)

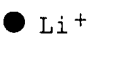
RN 94-36-0 HCAPLUS
CN Peroxide, dibenzoyl (9CI) (CA INDEX NAME)



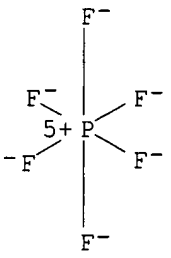
IT **14283-07-9**, **Lithium** tetrafluoroborate **21324-40-3**, **Lithium** hexafluorophosphate **90076-65-6** **155812-81-0**
RL: DEV (Device component use); USES (Uses)
(**electrolyte**; preparation of covalently and phys. crosslinked **polymer** network **polyelectrolytes** useful for batteries)

RN 14283-07-9 HCAPLUS
CN Borate(1-), tetrafluoro-, lithium (8CI, 9CI) (CA INDEX NAME)



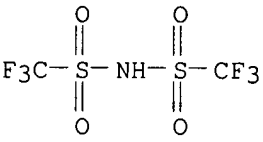


RN 21324-40-3 HCAPLUS
CN Phosphate(1-), hexafluoro-, lithium (8CI, 9CI) (CA INDEX NAME)



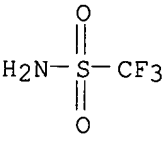
● Li^+

RN 90076-65-6 HCAPLUS
CN Methanesulfonamide, 1,1,1-trifluoro-N-[(trifluoromethyl)sulfonyl]-, lithium salt (9CI) (CA INDEX NAME)



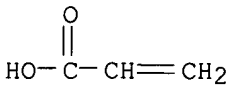
● Li

RN 155812-81-0 HCAPLUS
CN Methanesulfonamide, 1,1,1-trifluoro-, monolithium salt (9CI) (CA INDEX NAME)

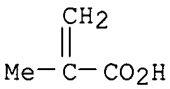


● Li

IT **79-10-7DP**, Acrylic acid, esters, **polymers**
79-41-4DP, Methacrylic acid, esters, **polymers** with pentaerythritol triacrylate **129914-67-6P**, Polyethylene glycol diacrylate-trimethylolpropane triacrylate **copolymer**
305834-74-6P
RL: DEV (Device component use); IMF (Industrial manufacture); POF (Polymer in formulation); PREP (Preparation); USES (Uses)
(preparation of covalently and phys. crosslinked **polymer** network **polyelectrolytes** useful for batteries)
RN 79-10-7 HCAPLUS
CN 2-Propenoic acid (9CI) (CA INDEX NAME)



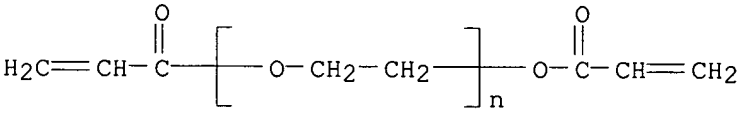
RN 79-41-4 HCAPLUS
CN 2-Propenoic acid, 2-methyl- (9CI) (CA INDEX NAME)



RN 129914-67-6 HCAPLUS
CN 2-Propenoic acid, 2-ethyl-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, polymer with α-(1-oxo-2-propenyl)-ω-[(1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl) (9CI) (CA INDEX NAME)

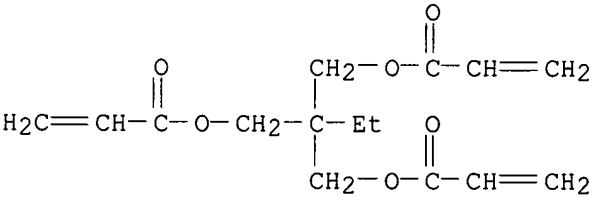
CM 1

CRN 26570-48-9
CMF (C2 H4 O)n C6 H6 O3
CCI PMS



CM 2

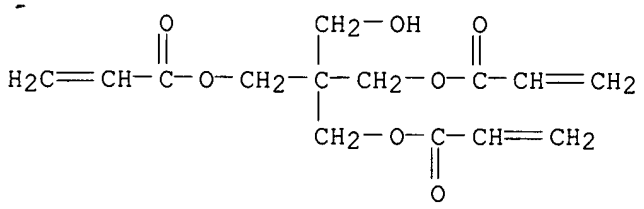
CRN 15625-89-5
CMF C15 H20 O6



RN 305834-74-6 HCAPLUS
CN 2-Propenoic acid, 2-(hydroxymethyl)-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, polymer with oxirane (9CI) (CA INDEX NAME)

CM 1

CRN 3524-68-3
CMF C14 H18 O7



CM 2

CRN 75-21-8
CMF C2 H4 O

L198 ANSWER 33 OF 38 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2000:665699 HCAPLUS
DN 133:254952
TI **Polymer electrolyte** for **lithium** secondary batteries
IN Oyama, Noboru
PA Japan
SO Eur. Pat. Appl., 32 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1037294	A2	20000920	EP 2000-105773	20000317 <--
	EP 1037294	A3	20030730		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	JP 2001189166	A2	20010710	JP 2000-70790	20000314 <--
	CA 2301414	AA	20000917	CA 2000-2301414	20000316 <--
	US 6509122	B1	20030121	US 2000-527569	20000316 <--
	CN 1267683	A	20000927	CN 2000-104319	20000317 <--
	AU 770639	B2	20040226	AU 2000-22331	20000317 <--
	US 2003082458	A1	20030501	US 2002-227532	20020826 <--
PRAI	JP 1999-71758	A	19990317 <--		
	JP 1999-295503	A	19991018 <--		
	US 2000-527569	A3	20000316 <--		

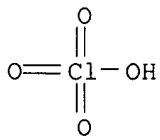
AB A **polymer electrolyte** providing **lithium** secondary batteries in which growth of **lithium** dendrites is suppressed and batteries exhibiting excellent discharge characteristics in low to high temperature, comprises a **polymer** gel holding a nonaq. solvent containing an **electrolyte**. The polymer gel comprises (I) a unit derived from at least one monomer having one copolymerizable vinyl group and (II) a unit derived from at least one compound selected from the group consisting of (II-a) a compound having two acryloyl groups and a (poly)oxyethylene group, (II-b) a compound having one acryloyl group and a (poly)oxyethylene group, and (II-c) a glycidyl ether compound, particularly the polymer gel comprises monomer (I), compound (II-a), and a copolymerizable plasticizing compound

IT **7439-93-2, Lithium**, uses **7791-03-9, Lithium** perchlorate **9063-88-1**, Blemmer PDE 400-methyl methacrylate **copolymer 14283-07-9, Lithium** tetrafluoroborate **21324-40-3, Lithium** hexafluorophosphate **25101-19-3**, Methylmethacrylate-triethylene glycol dimethacrylate **copolymer 25777-71-3**, Blemmer PDE 50-methyl methacrylate **copolymer 27308-26-5**, Blemmer PDE 100-methyl methacrylate **copolymer 29403-27-8 29935-35-1, Lithium** hexafluoroarsenate **33454-82-9, Lithium** triflate **59049-11-5**, Blemmer PME 150-methyl methacrylate **copolymer 72892-39-8**, Blemmer PE 200-methyl methacrylate **copolymer 90076-65-6 114388-54-4**, Cyclohexyl methacrylate-methyl methacrylate-triethylene glycol dimethacrylate **copolymer 129283-05-2 130425-25-1**, Blemmer PME 100-methyl methacrylate **copolymer 131651-65-5 132404-42-3 144442-23-9 294189-09-6**, Methyl methacrylate-2-methacryloyloxyethyl phthalate-triethylene glycol dimethacrylate **copolymer 294189-10-9**, Benzyl methacrylate-methyl methacrylate-triethylene glycol dimethacrylate **copolymer 294189-11-0**, Isobornyl methacrylate-methyl methacrylate-triethylene glycol dimethacrylate **copolymer 294189-13-2 294189-16-5**, Diethylene glycol monomethacrylate-methyl methacrylate-triethylene glycol dimethacrylate **copolymer 294189-17-6**, Methoxyethyleneglycol methacrylate-methyl methacrylate-triethylene glycol dimethacrylate **copolymer**
RL: DEV (Device component use); USES (Uses)
(**polymer electrolyte** for **lithium** secondary batteries)

RN 7439-93-2 HCAPLUS
CN Lithium (7CI, 8CI, 9CI) (CA INDEX NAME)

Li

RN 7791-03-9 HCAPLUS
CN Perchloric acid, lithium salt (8CI, 9CI) (CA INDEX NAME)



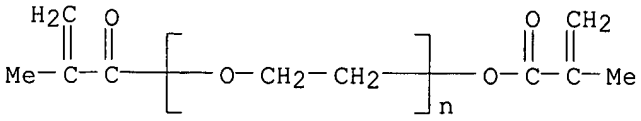
● Li

RN 9063-88-1 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with α-(2-methyl-1-oxo-2-propenyl)-ω-[(2-methyl-1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl) (9CI) (CA INDEX NAME)

CM 1

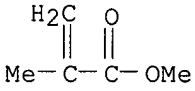
CRN 25852-47-5
CMF (C2 H4 O)n C8 H10 O3

CCI PMS

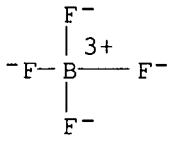


CM 2

CRN 80-62-6
CMF C5 H8 O2

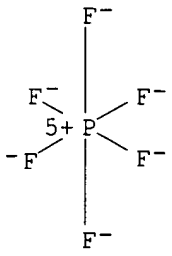


RN 14283-07-9 HCAPLUS
CN Borate(1-), tetrafluoro-, lithium (8CI, 9CI) (CA INDEX NAME)



● Li^+

RN 21324-40-3 HCAPLUS
CN Phosphate(1-), hexafluoro-, lithium (8CI, 9CI) (CA INDEX NAME)

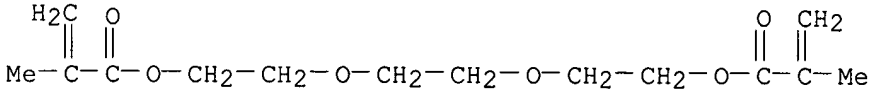


● Li^+

RN 25101-19-3 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 1,2-ethanediylbis(oxy-2,1-ethanediyl) ester, polymer with methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

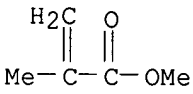
CM 1

CRN 109-16-0
CMF C14 H22 O6



CM 2

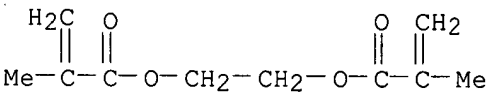
CRN 80-62-6
CMF C5 H8 O2



RN 25777-71-3 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 1,2-ethanediyl ester, polymer with methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

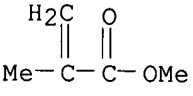
CM 1

CRN 97-90-5
CMF C10 H14 O4



CM 2

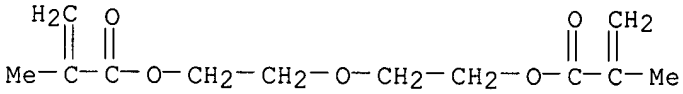
CRN 80-62-6
CMF C5 H8 O2



RN 27308-26-5 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, oxydi-2,1-ethanediyl ester, polymer with methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

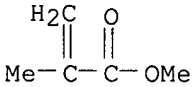
CM 1

CRN 2358-84-1
CMF C12 H18 O5



CM 2

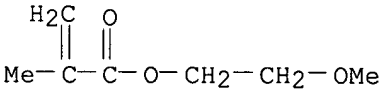
CRN 80-62-6
CMF C5 H8 O2



RN 29403-27-8 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 2-methoxyethyl ester, polymer with methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

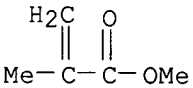
CM 1

CRN 6976-93-8
CMF C7 H12 O3

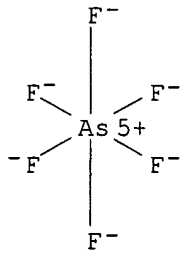


CM 2

CRN 80-62-6
CMF C5 H8 O2

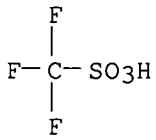


RN 29935-35-1 HCAPLUS
CN Arsenate(1-), hexafluoro-, lithium (8CI, 9CI) (CA INDEX NAME)



● Li^+

RN 33454-82-9 HCAPLUS
CN Methanesulfonic acid, trifluoro-, lithium salt (8CI, 9CI) (CA INDEX NAME)

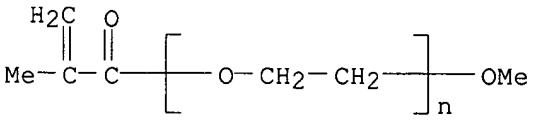


● Li

RN 59049-11-5 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with α-(2-methyl-1-oxo-2-propenyl)-ω-methoxypoly(oxy-1,2-ethanediyl) (9CI) (CA INDEX NAME)

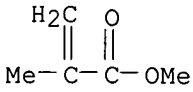
CM 1

CRN 26915-72-0
CMF (C2 H4 O)n C5 H8 O2
CCI PMS



CM 2

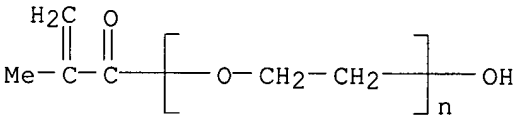
CRN 80-62-6
CMF C5 H8 O2



RN 72892-39-8 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with α-(2-methyl-1-oxo-2-propenyl)-ω-hydroxypoly(oxy-1,2-ethanediyl) (9CI) (CA INDEX NAME)

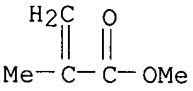
CM 1

CRN 25736-86-1
CMF (C2 H4 O)n C4 H6 O2
CCI PMS

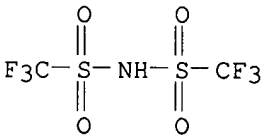


CM 2

CRN 80-62-6
CMF C5 H8 O2



RN 90076-65-6 HCAPLUS
CN Methanesulfonamide, 1,1,1-trifluoro-N-[(trifluoromethyl)sulfonyl]-, lithium salt (9CI) (CA INDEX NAME)



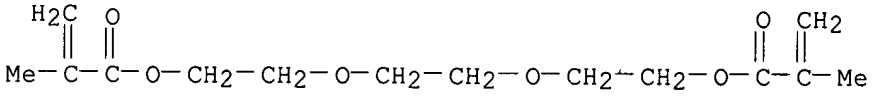
● Li

RN 114388-54-4 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 1,2-ethanediylbis(oxy-2,1-ethanediyl) ester, polymer with cyclohexyl 2-methyl-2-propenoate and methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

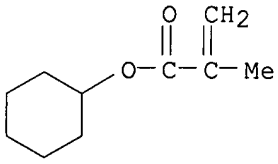
CRN 109-16-0

CMF C14 H22 O6



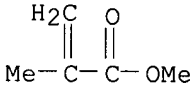
CM 2

CRN 101-43-9
CMF C10 H16 O2



CM 3

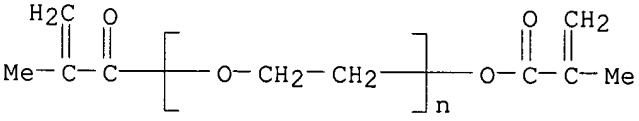
CRN 80-62-6
CMF C5 H8 O2



RN 129283-05-2 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with α-(2-methyl-1-oxo-2-propenyl)-ω-hydroxypoly(oxy-1,2-ethanediyl) and α-(2-methyl-1-oxo-2-propenyl)-ω-[(2-methyl-1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl), graft (9CI) (CA INDEX NAME)

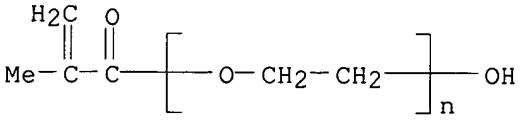
CM 1

CRN 25852-47-5
CMF (C2 H4 O)n C8 H10 O3
CCI PMS



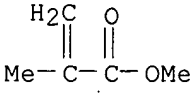
CM 2

CRN 25736-86-1
CMF (C2 H4 O)n C4 H6 O2
CCI PMS



CM 3

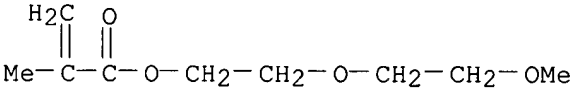
CRN 80-62-6
CMF C5 H8 O2



RN 130425-25-1 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 2-(2-methoxyethoxy)ethyl ester, polymer with methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

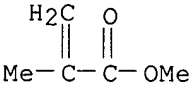
CM 1

CRN 45103-58-0
CMF C9 H16 O4

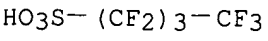


CM 2

CRN 80-62-6
CMF C5 H8 O2



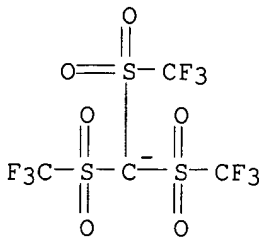
RN 131651-65-5 HCAPLUS
CN 1-Butanesulfonic acid, 1,1,2,2,3,3,4,4,4-nonafluoro-, lithium salt (9CI) (CA INDEX NAME)



● Li

RN 132404-42-3 HCAPLUS

CN Methane, tris[(trifluoromethyl)sulfonyl]-, ion(1-), lithium (9CI) (CA INDEX NAME)

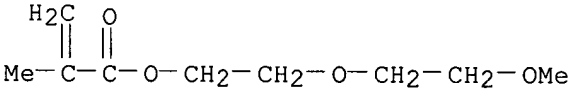


● Li^+

RN 144442-23-9 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 1,2-ethanediylbis(oxy-2,1-ethanediyl) ester, polymer with 2-(2-methoxyethoxy)ethyl 2-methyl-2-propenoate and methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

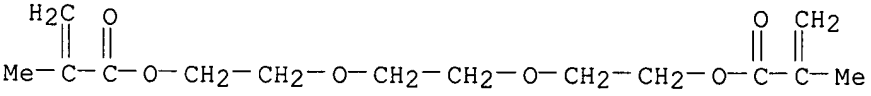
CM 1

CRN 45103-58-0
CMF C9 H16 O4



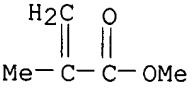
CM 2

CRN 109-16-0
CMF C14 H22 O6



CM 3

CRN 80-62-6
CMF C5 H8 O2

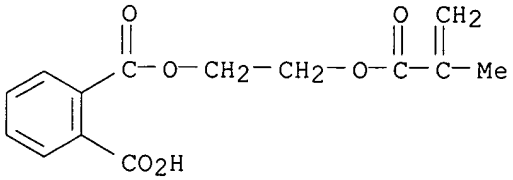


RN 294189-09-6 HCAPLUS

CN 1,2-Benzenedicarboxylic acid, mono[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl] ester, polymer with 1,2-ethanediylbis(oxy-2,1-ethanediyl) bis(2-methyl-2-propenoate) and methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

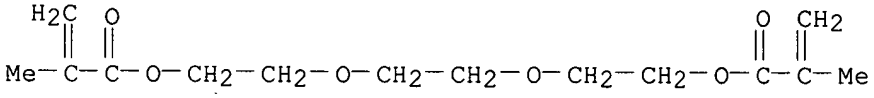
CM 1

CRN 27697-00-3
CMF C14 H14 O6



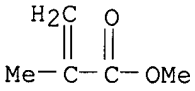
CM 2

CRN 109-16-0
CMF C14 H22 O6



CM 3

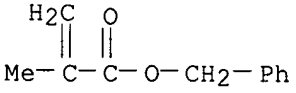
CRN 80-62-6
CMF C5 H8 O2



RN 294189-10-9 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 1,2-ethanediylbis(oxy-2,1-ethanediyl) ester, polymer with methyl 2-methyl-2-propenoate and phenylmethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

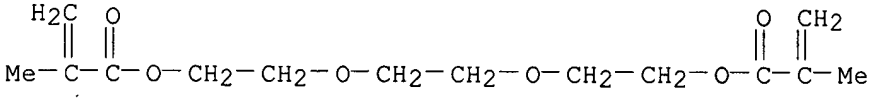
CM 1

CRN 2495-37-6
CMF C11 H12 O2



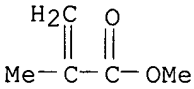
CM 2

CRN 109-16-0
CMF C14 H22 O6



CM 3

CRN 80-62-6
CMF C5 H8 O2

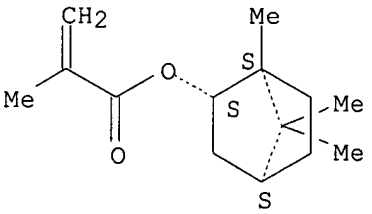


RN 294189-11-0 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 1,2-ethanediylbis(oxy-2,1-ethanediyl) ester, polymer with methyl 2-methyl-2-propenoate and rel-(1R,2R,4R)-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

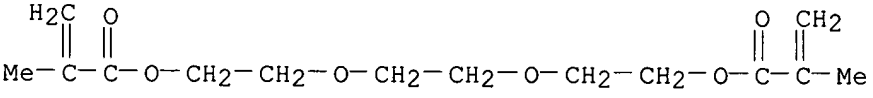
CRN 7534-94-3
CMF C14 H22 O2

Relative stereochemistry.



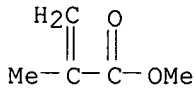
CM 2

CRN 109-16-0
CMF C14 H22 O6



CM 3

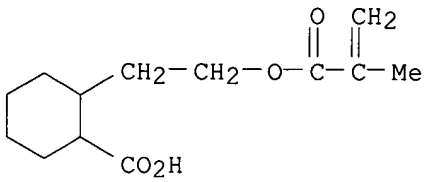
CRN 80-62-6
CMF C5 H8 O2



RN 294189-13-2 HCAPLUS
CN Cyclohexanecarboxylic acid, 2-[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]-, polymer with 1,2-ethanediylbis(oxy-2,1-ethanediyl) bis(2-methyl-2-propenoate) and methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

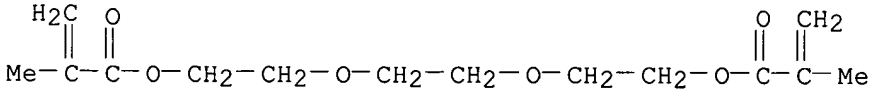
CM 1

CRN 149539-44-6
CMF C13 H20 O4



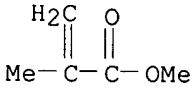
CM 2

CRN 109-16-0
CMF C14 H22 O6



CM 3

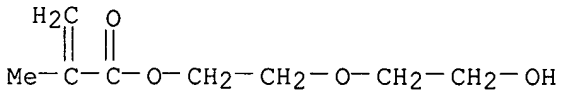
CRN 80-62-6
CMF C5 H8 O2



RN 294189-16-5 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 1,2-ethanediylbis(oxy-2,1-ethanediyl) ester, polymer with 2-(2-hydroxyethoxy)ethyl 2-methyl-2-propenoate and methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

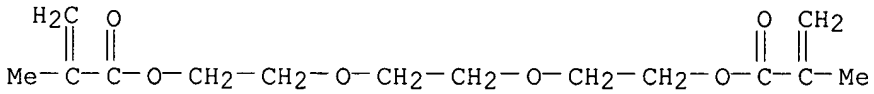
CM 1

CRN 2351-43-1
CMF C8 H14 O4



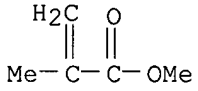
CM 2

CRN 109-16-0
CMF C14 H22 O6



CM 3

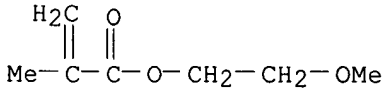
CRN 80-62-6
CMF C5 H8 O2



RN 294189-17-6 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 1,2-ethanediylbis(oxy-2,1-ethanediyl) ester, polymer with 2-methoxyethyl 2-methyl-2-propenoate and methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

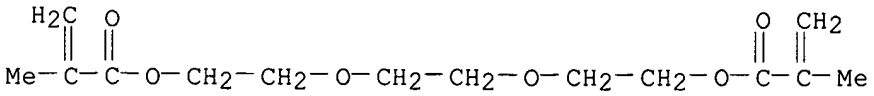
CM 1

CRN 6976-93-8
CMF C7 H12 O3



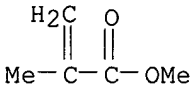
CM 2

CRN 109-16-0
CMF C14 H22 O6

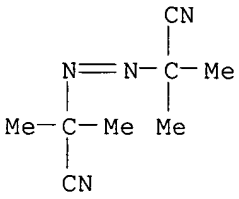


CM 3

CRN 80-62-6
CMF C5 H8 O2



IT **78-67-1**, AIBN
RL: TEM (Technical or engineered material use); USES (Uses)
(**polymerization initiator; polymer electrolyte** for **lithium** secondary batteries)
RN 78-67-1 HCAPLUS
CN Propanenitrile, 2,2'-azobis[2-methyl- (9CI) (CA INDEX NAME)



L198 ANSWER 34 OF 38 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2000:585457 HCAPLUS
DN 133:193618
TI Manufacture of polymer solid electrodes and their use in secondary **lithium** batteries
IN Onuki, Masamichi
PA Mitsubishi Chemical Corp., Japan
SO Jpn. Kokai Tokkyo Koho, 13 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

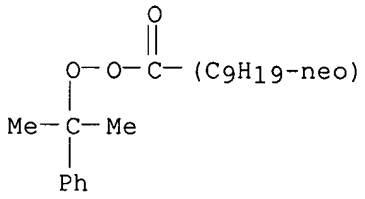
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2000230019	A2	20000822	JP 1999-167937	19990615 <--
PRAI JP 1998-351120	A	19981210 <--		

OS MARPAT 133:193618
AB The electrodes are manufactured by polymerizing ethylenically unsatd. double bond-containing alkylene glycol monomers in the presence of **Li** salts, solvents, and R1CR2R3O2C(O)CR4R5R6 (R1-3 = H, hydrocarbyl; R4-6 = alkyl, aryl; at least one of R4-6 is C≥2 alkyl or aryl). Using the peroxyesters as **initiators** gives homogeneous solid electrolytes without residual bubbles in short time. Thus, a mixture containing Aronix M 240

(tetraethylene glycol diacrylate), Aronix M 370 (trimethylolpropane ethoxylate triacrylate), solvents, $LiClO_4$, and Trigonox 23C70 (tert-butylperoxyneodecanoate) was aged for 15 min to give a bubble-free composition, which was applied on battery components and heated to give a battery showing good cycle performance.

IT **26748-47-0**, α-Cumylperoxyneodecanoate
RL: CAT (Catalyst use); USES (Uses)
(Kayaester CND; peroxyester **initiators** in manufacture of polymer solid electrodes without residual bubbles for secondary **Li** batteries)

RN 26748-47-0 HCAPLUS
CN Neodecaneperoxoic acid, 1-methyl-1-phenylethyl ester (9CI) (CA INDEX NAME)



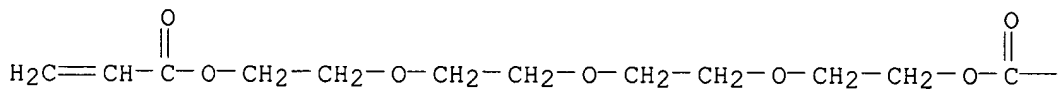
IT **57619-91-7P**, Aronix M 240 homopolymer **150958-20-6P** **276888-77-8P**
RL: DEV (Device component use); IMF (Industrial manufacture); PRP (Properties); PREP (Preparation); USES (Uses)
(peroxyester **initiators** in manufacture of polymer solid electrodes without residual bubbles for secondary **Li** batteries)

RN 57619-91-7 HCAPLUS
CN 2-Propenoic acid, oxybis(2,1-ethanediyloxy-2,1-ethanediyl) ester, homopolymer (9CI) (CA INDEX NAME)

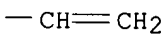
CM 1

CRN 17831-71-9
CMF C14 H22 O7

PAGE 1-A



PAGE 1-B

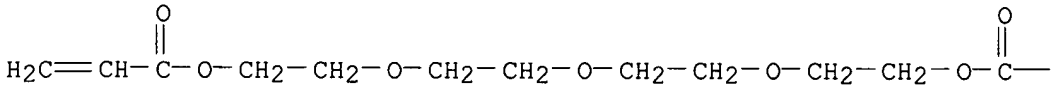


RN 150958-20-6 HCAPLUS
CN 2-Propenoic acid, oxybis(2,1-ethanediyloxy-2,1-ethanediyl) ester, polymer with 2-(2-ethoxyethoxy)ethyl 2-propenoate (9CI) (CA INDEX NAME)

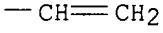
CM 1

CRN 17831-71-9
CMF C14 H22 O7

PAGE 1-A

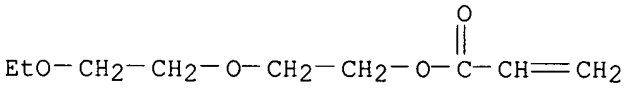


PAGE 1-B



CM 2

CRN 7328-17-8
CMF C9 H16 O4

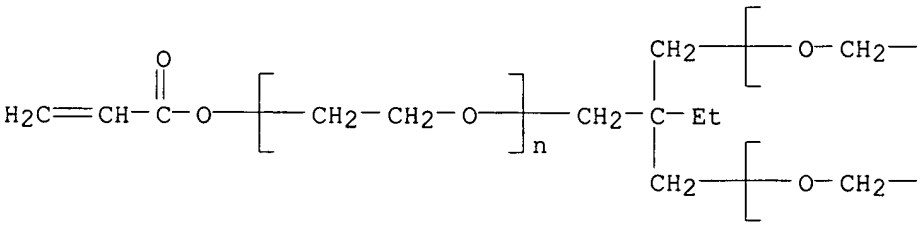


RN 276888-77-8 HCAPLUS
CN 2-Propenoic acid, oxybis(2,1-ethanediyloxy-2,1-ethanediyl) ester, polymer with α-hydro-ω-[(1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl) ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) (9CI) (CA INDEX NAME)

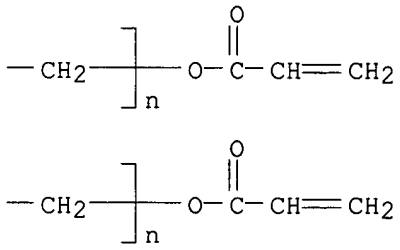
CM 1

CRN 28961-43-5
CMF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C15 H20 O6
CCI PMS

PAGE 1-A



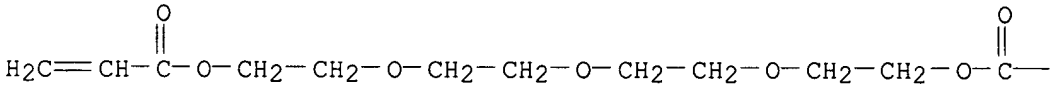
PAGE 1-B



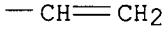
CM 2

CRN 17831-71-9
CMF C14 H22 O7

PAGE 1-A



PAGE 1-B



L198 ANSWER 35 OF 38 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2000:181036 HCAPLUS
DN 132:224806
TI Acrylic **polymer** compositions for solid **electrolytes** and **polymer** batteries
IN Abe, Tetsuya; Yokoshima, Minoru
PA Nippon Kayaku Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000080138	A2	20000321	JP 1998-248954	19980903 <--
PRAI	JP 1998-248954		19980903 <--		

AB The **polymer** compns. comprise (A) pentaerythritol polyalkoxylate tri(meth)acrylate, pentaerythritol polyalkoxylate tetra(meth)acrylate, ditrimethylolpropane polyalkoxylate tetra(meth)acrylate, dipentaerythritol polyalkoxylate penta(meth)acrylate, and/or dipentaerythritol polyalkoxylate hexa(meth)acrylate, (C) plasticizers, and **electrolytes**. Optionally, the compns. comprise (B) photopolymn. **initiators**. **Polymer** solid **electrolytes** consisting of hardened products of the compns. and **polymer**

batteries equipped with the **electrolytes** are also claimed. The solid electrolytes have high membrane strength and ion conductivity

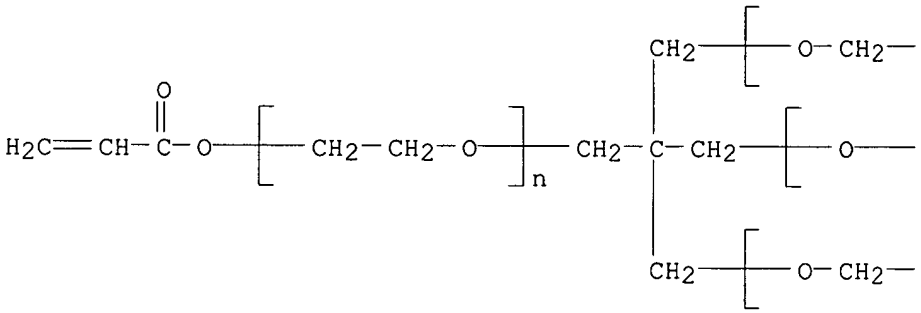
IT **7439-93-2D, Lithium, polymer** complexes, uses
51728-26-8D, Ethoxylated pentaerythritol tetraacrylate, **lithium** complexes **261354-30-7D, lithium** complexes
RL: DEV (Device component use); PRP (Properties); USES (Uses)
(acrylic **polymer** compns. for high-strength solid-**electrolyte** membranes and **polymer** batteries)

RN 7439-93-2 HCAPLUS
CN Lithium (7CI, 8CI, 9CI) (CA INDEX NAME)

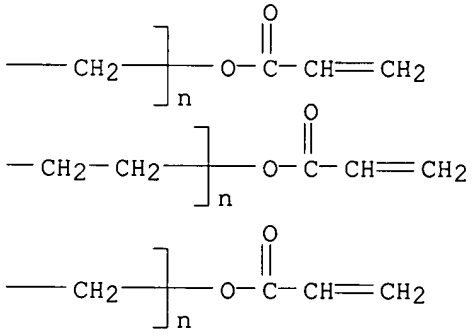
Li

RN 51728-26-8 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-hydro-ω-[(1-oxo-2-propenyl)oxy]-, ether with 2,2-bis(hydroxymethyl)-1,3-propanediol (4:1) (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



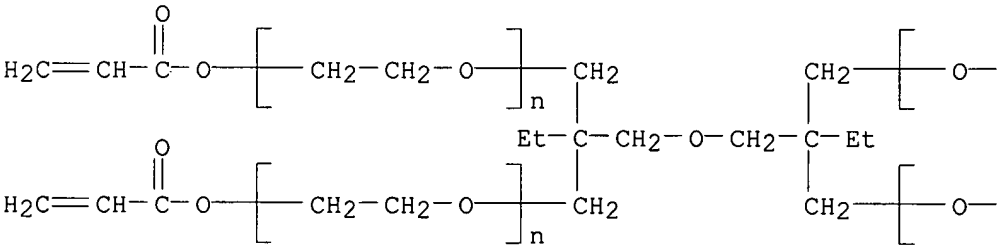
RN 261354-30-7 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-hydro-ω-[(1-oxo-2-propenyl)oxy]-, ether with 2,2'-[oxybis(methylene)]bis[2-ethyl-1,3-propanediol] (4:1), polymer with α-hydro-ω-[(1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl) ether with 2,2'-[oxybis(methylene)]bis[2-(hydroxymethyl)-1,3-

propanediol] (6:1) (9CI) (CA INDEX NAME)

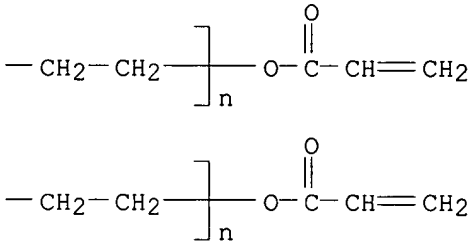
CM 1

CRN 128295-68-1
CMF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C24 H34 O9
CCI PMS

PAGE 1-A



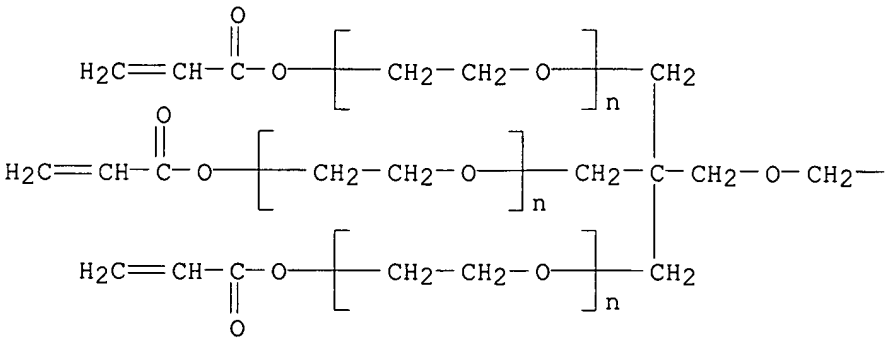
PAGE 1-B

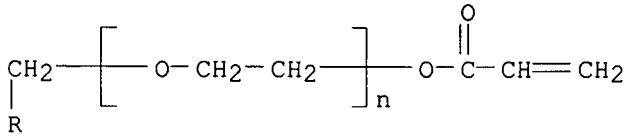


CM 2

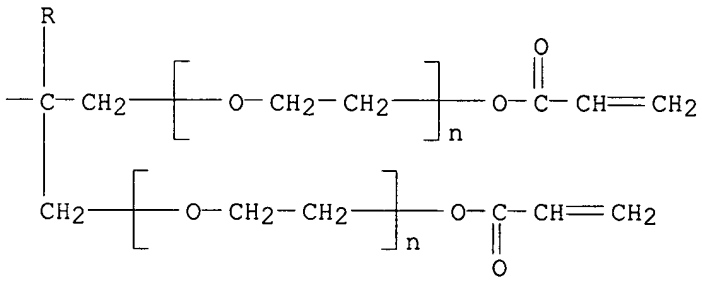
CRN 104634-06-2
CMF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C28 H34 O13
CCI PMS

PAGE 1-A

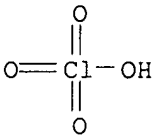




PAGE 1-B

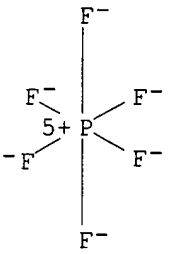


IT **7791-03-9, Lithium** perchlorate **21324-40-3, Lithium** hexafluorophosphate
RL: DEV (Device component use); USES (Uses)
(**electrolytes**; acrylic **polymer** compns. for high-strength solid-**electrolyte** membranes and **polymer** batteries)
RN 7791-03-9 HCAPLUS
CN Perchloric acid, lithium salt (8CI, 9CI) (CA INDEX NAME)



● Li

RN 21324-40-3 HCAPLUS
CN Phosphate(1-), hexafluoro-, lithium (8CI, 9CI) (CA INDEX NAME)



● Li^+

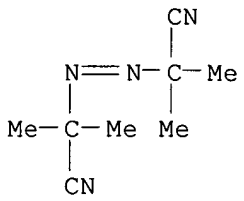
L198 ANSWER 36 OF 38 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 1999:620548 HCAPLUS
DN 131:245549
TI Ion-conducting **polymer** gel **electrolytes** and batteries using them
IN Taniuchi, Masahiro; Kato, Ikuo; Kahata, Toshiyuki; Fujii, Toshishige
PA Ricoh Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 11 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11265616	A2	19990928	JP 1998-89315	19980318 <--
	JP 3580523	B2	20041027		
PRAI	JP 1998-89315		19980318 <--		

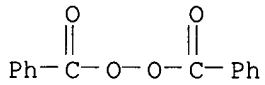
AB The title gel **electrolytes** contain thermal **polymerization initiators** having half-life ≤2 h at temperature lower than b.p. of a solvent having lowest b.p. in solvents for the gels. Batteries using the above gels are also claimed. The gel electrolytes have high ion conductivity and strength and suppress decrease of energy d. in repeated use.
IT **78-67-1**, 2,2'-Azobisisobutyronitrile **94-36-0**, Benzoyl peroxide, uses **105-64-6**, Diisopropylperoxydicarbonate **15520-11-3**, Bis(4-t-butylcyclohexyl)peroxydicarbonate
RL: CAT (Catalyst use); USES (Uses)

(catalysts; ion-conducting **polymer** gel **electrolytes** using thermal **polymerization initiators** for batteries)

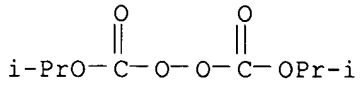
RN 78-67-1 HCAPLUS
CN Propanenitrile, 2,2'-azobis[2-methyl- (9CI) (CA INDEX NAME)



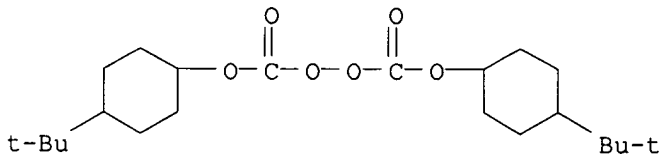
RN 94-36-0 HCAPLUS
CN Peroxide, dibenzoyl (9CI) (CA INDEX NAME)



RN 105-64-6 HCAPLUS
CN Peroxydicarbonic acid, bis(1-methylethyl) ester (9CI) (CA INDEX NAME)



RN 15520-11-3 HCAPLUS
CN Peroxydicarbonic acid, bis[4-(1,1-dimethylethyl)cyclohexyl] ester (9CI) (CA INDEX NAME)



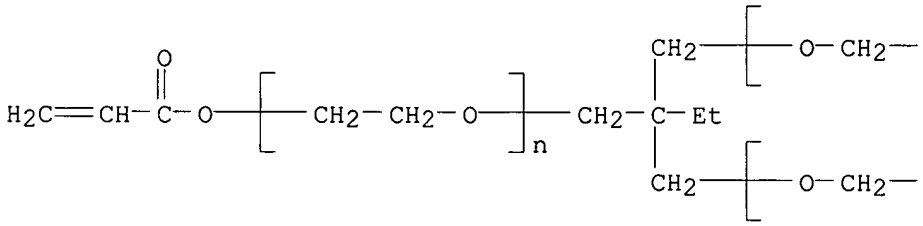
IT **7439-93-2DP, Lithium**, acrylic polyoxyalkylene complexes, uses **28961-43-5DP**, Ethoxylated trimethylolpropane triacrylate, **polymers** with methoxypropylene glycol acrylate, **lithium** complexes **65744-44-7DP, lithium** complexes **86469-77-4DP, lithium** complexes **185383-24-8DP**, Methyldiethylene glycol acrylate-trimethylolpropane triacrylate **copolymer, lithium** complexes **187941-84-0DP**, Ethoxylated trimethylolpropane triacrylate-methyldiethylene glycol acrylate **copolymer, lithium** complexes **211796-46-2DP**, Ethyldiethylene glycol methacrylate-propoxylated trimethylolpropane triacrylate **copolymer, lithium** complexes **244298-33-7DP**, Ethylene glycol dimethacrylate-methyldiethylene glycol acrylate **copolymer, lithium** complexes

RL: DEV (Device component use); PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(ion-conducting **polymer** gel **electrolytes** using thermal **polymerization initiators** for batteries)

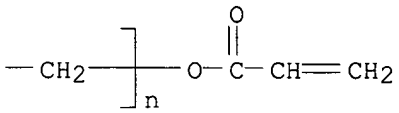
RN 7439-93-2 HCAPLUS
CN Lithium (7CI, 8CI, 9CI) (CA INDEX NAME)

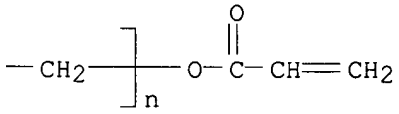
RN 28961-43-5 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-hydro-ω-[(1-oxo-2-propenyl)oxy]-, ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

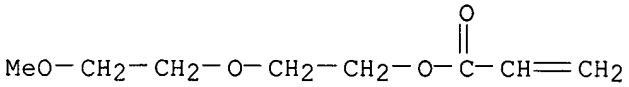




RN 65744-44-7 HCAPLUS
CN 2-Propenoic acid, 2-(2-methoxyethoxy)ethyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 7328-18-9
CMF C8 H14 O4

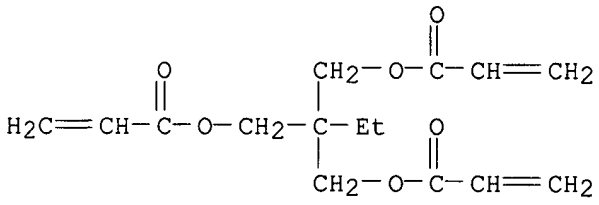


RN 86469-77-4 HCAPLUS
CN 2-Propenoic acid, 2-(2-ethoxyethoxy)ethyl ester, polymer with 2-ethyl-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate

(9CI) (CA INDEX NAME)

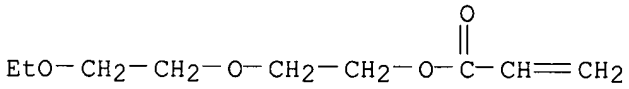
CM 1

CRN 15625-89-5
CMF C15 H20 O6



CM 2

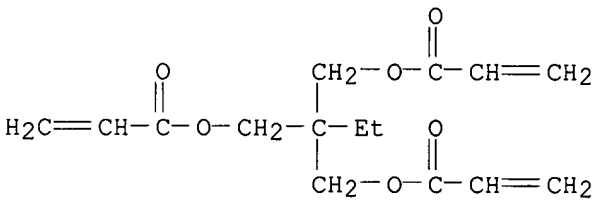
CRN 7328-17-8
CMF C9 H16 O4



RN 185383-24-8 HCAPLUS
CN 2-Propenoic acid, 2-ethyl-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, polymer with 2-(2-methoxyethoxy)ethyl 2-propenoate (9CI) (CA INDEX NAME)

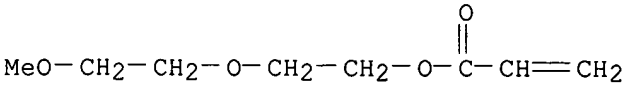
CM 1

CRN 15625-89-5
CMF C15 H20 O6



CM 2

CRN 7328-18-9
CMF C8 H14 O4

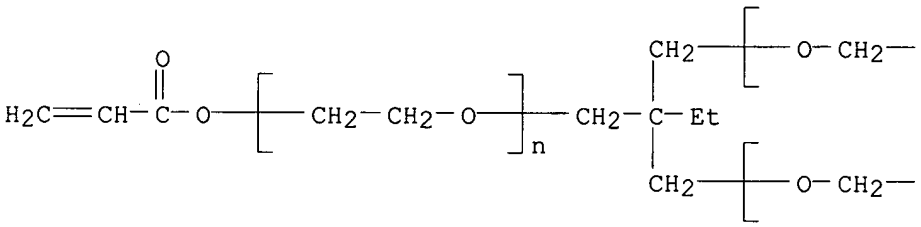


RN 187941-84-0 HCAPLUS
CN 2-Propenoic acid, 2-(2-methoxyethoxy)ethyl ester, polymer with α-hydro-ω-[(1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl) ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) (9CI) (CA INDEX NAME)

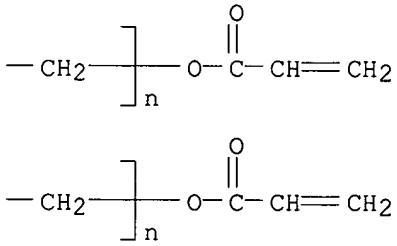
CM 1

CRN 28961-43-5
CMF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C15 H20 O6
CCI PMS

PAGE 1-A

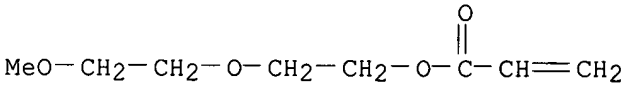


PAGE 1-B



CM 2

CRN 7328-18-9
CMF C8 H14 O4



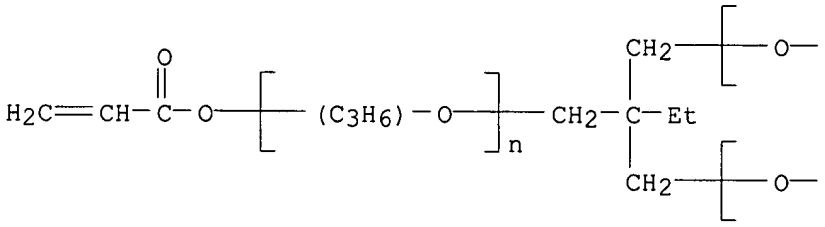
RN 211796-46-2 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 2-(2-ethoxyethoxy)ethyl ester, polymer with α-hydro-ω-[(1-oxo-2-propenyl)oxy]poly[oxy(methyl-1,2-ethanediyl)] ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) (9CI) (CA INDEX NAME)

CM 1

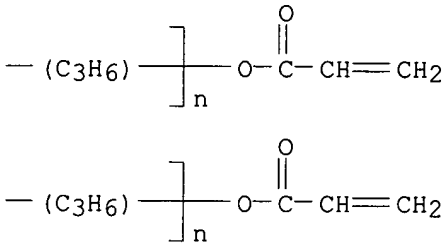
CRN 53879-54-2

CMF (C3 H6 O)n (C3 H6 O)n (C3 H6 O)n C15 H20 O6
CCI IDS, PMS

PAGE 1-A

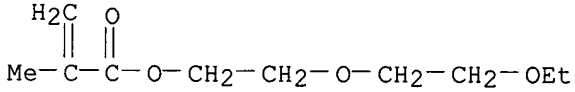


PAGE 1-B



CM 2

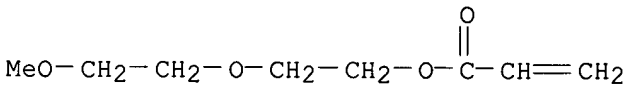
CRN 45127-97-7
CMF C10 H18 O4



RN 244298-33-7 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 1,2-ethanediyl ester, polymer with 2-(2-methoxyethoxy)ethyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

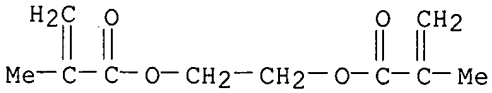
CRN 7328-18-9
CMF C8 H14 O4



CM 2

CRN 97-90-5

CMF C10 H14 O4

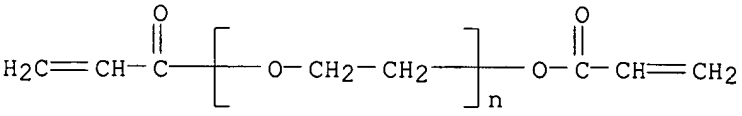


L198 ANSWER 37 OF 38 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 1998:685294 HCAPLUS
DN 129:318659
TI **Polymer** solid **electrolytes**, their manufacture, and **lithium** secondary batteries using the **electrolytes**
IN Lee, Hakaru Fukashi; Shigeru, Akira Hyun; Lee, Susumu Kaori
PA **Samsung Electronics Co., Ltd., S. Korea**
SO Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 10283839	A2	19981023	JP 1997-260487	19970925 <--
	JP 2896361	B2	19990531		
	US 5965300	A	19991012	US 1997-921279	19970829 <--
PRAI	KR 1997-13286	A	19970410 <--		
	KR 1997-30816	A	19970703 <--		

AB The **electrolytes** consist of (A) mediums comprising (a) matrix **polymers** made of CH2:CR1CONR2R3 (I; R1 = H, Me; R2, R3 = H, Me, Et, Pr, C3H6NR'2, CH2CH2OH; R' = C1-5 alkyl) and CH2:CR4CO(OCH2CH2)nOCOCR5:CH2 (II; R4, R5 = H, Me; n = 3-30), (b) **polymerization initiators**, (c) inorg. salts, and (d) solvents and (B) vinylidene fluoride **polymers** and/or N,N-diethylacrylamide (III). The **electrolytes** are manufactured by adding **electrolytic** solns. comprising II, **polymerization initiators**, inorg. salts, and solvents to I, adding vinyldiene fluoride **polymers** and/or III to the resulting mixts., and **polymerizing** the components in the mixts. The electrolytes show prevention of leaking of electrolytic solns. and improved ion conductivity and mech. strength.

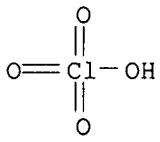
IT **26570-48-9**
RL: MOA (Modifier or additive use); RCT (Reactant); RACT (Reactant or reagent); USES (Uses)
(crosslinking agents; in solid **electrolytes** containing acrylic **polymer** matrix and vinylidene fluoride **polymers** and/or diethylacrylamide for **lithium** secondary batteries)
RN 26570-48-9 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-(1-oxo-2-propenyl)-ω-[(1-oxo-2-propenyl)oxy]- (9CI) (CA INDEX NAME)



IT **7791-03-9, Lithium** perchlorate **14283-07-9, Lithium** tetrafluoroborate **21324-40-3, Lithium**

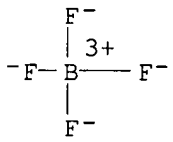
hexafluorophosphate **33454-82-9, Lithium**
trifluoromethanesulfonate **90076-65-6, Lithium**
bis(trifluoromethanesulfonyl)imide
RL: TEM (Technical or engineered material use); USES (Uses)
(**electrolyte**; solid **electrolytes** containing acrylic
polymer matrix and vinylidene fluoride **polymers**
and/or diethylacrylamide for **lithium** secondary batteries)

RN 7791-03-9 HCAPLUS
CN Perchloric acid, lithium salt (8CI, 9CI) (CA INDEX NAME)



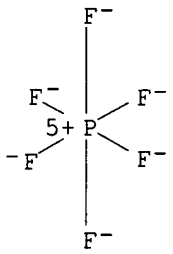
● Li

RN 14283-07-9 HCAPLUS
CN Borate(1-), tetrafluoro-, lithium (8CI, 9CI) (CA INDEX NAME)



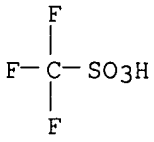
● Li^+

RN 21324-40-3 HCAPLUS
CN Phosphate(1-), hexafluoro-, lithium (8CI, 9CI) (CA INDEX NAME)

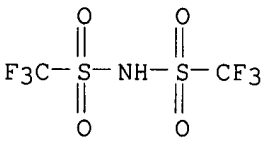


● Li^+

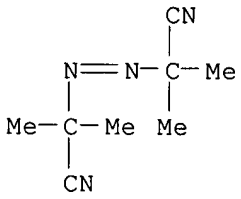
RN 33454-82-9 HCAPLUS
CN Methanesulfonic acid, trifluoro-, lithium salt (8CI, 9CI) (CA INDEX NAME)



RN 90076-65-6 HCAPLUS
CN Methanesulfonamide, 1,1,1-trifluoro-N-[(trifluoromethyl)sulfonyl]-, lithium salt (9CI) (CA INDEX NAME)



IT **78-67-1**, AIBN
RL: CAT (Catalyst use); USES (Uses)
(**polymerization initiators**; solid **electrolytes** containing acrylic **polymer** matrix and vinylidene fluoride **polymers** and/or diethylacrylamide for **lithium** secondary batteries)
RN 78-67-1 HCAPLUS
CN Propanenitrile, 2,2'-azobis[2-methyl- (9CI) (CA INDEX NAME)



L198 ANSWER 38 OF 38 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 1998:147170 HCAPLUS
DN 128:156620
TI Solid **polymer electrolytes** and secondary **lithium** batteries using the **electrolytes**
IN Lee, Doo-yeon; Sung, Sang-hyun; Hirai, Yasumasa; Doo, Seok-gwang
PA **Samsung Electronics Co., Ltd., S. Korea**
SO Eur. Pat. Appl., 8 pp.
CODEN: EPXXDW
DT Patent
LA English

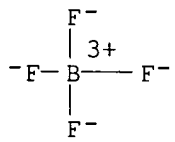
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 822608	A2	19980204	EP 1997-305697	19970729 <--
	EP 822608	A3	19990804		
	EP 822608	B1	20011128		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	JP 10116516	A2	19980506	JP 1997-204401	19970730 <--
	US 5952126	A	19990914	US 1997-902924	19970730 <--
PRAI	KR 1996-31528	A	19960730 <--		
	KR 1996-46314	A	19961016 <--		
	KR 1997-30817	A	19970703 <--		

AB The **electrolytes** have a **polymer** matrix, a **polymerization initiator**, an inorg. salt, and a solvent; where the **polymer** is a **copolymer** of acrylamide derivs. of formula: H2C(:C)R1CONR2R3 (R1 = H or Me, R2 and R3 = H, C1-6 alkyl, RNR' or R"OH group, but R' and R" = C1-6 alkyl group) and a crosslinking agent polyethylene glycol diacrylate of formula: H2C(:C)R4CO(OCH2CH2)nOCOC(R5)(:C)CH2 (R4 and R5 = H or Me, n = an integer of 3-30). The **polymeric** solid **electrolyte** has excellent conductivity and good machinability.

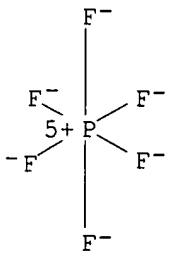
IT **14283-07-9**, **Lithium** fluoroborate **21324-40-3**, **Lithium** hexafluorophosphate
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process); USES (Uses)
(compns. and manufacture of **polymer electrolytes** for secondary **lithium** batteries)

RN 14283-07-9 HCAPLUS
CN Borate(1-), tetrafluoro-, lithium (8CI, 9CI) (CA INDEX NAME)



● Li^+

RN 21324-40-3 HCAPLUS
CN Phosphate(1-), hexafluoro-, lithium (8CI, 9CI) (CA INDEX NAME)



● Li^+

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